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# ANNUAL REPORT

OF THE

## Department of Lands and Forests

OF THE

## PROVINCE OF ALBERTA

FOR THE

**FISCAL YEAR ENDED MARCH 31st  
1953**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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EDMONTON:

PRINTED BY A. SHNITKA, QUEEN'S PRINTER

1953





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1953



To the Honourable J. J. Bowlen,  
*Lieutenant-Governor of the Province of Alberta.*

SIR:

I have the honour to submit the Report of the Department of Lands and Forests for the fiscal year ended March 31st, 1953.

I have the honour, to be, Sir,

Your obedient servant,

IVAN CASEY,  
*Minister of Lands and Forests.*

Edmonton, November 16, 1953.



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**CHIEF OFFICERS**  
**DEPARTMENT OF LANDS AND FORESTS**  
 March 31st, 1953

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Honourable Ivan Casey	<i>Minister of Lands &amp; Forests</i>
H. G. Jensen	<i>Deputy Minister Lands &amp; Forests</i>
V. A. Wood	<i>Director of Lands</i>
E. P. Shaver	<i>Asst. Director of Lands</i>
E. S. Huestis	<i>Director of Forestry</i>
J. R. H. Hall	<i>Asst. Director of Forestry</i>
J. L. Janssen	<i>Chief Timber Inspector</i>
A. Earnshaw	<i>Radio Superintendent</i>
D. Buck	<i>Supt. Brazeau-Athabasca Forest Area</i>
C. Harvie	<i>Supt. Provincial Parks</i>
E. S. Huestis	<i>Fish and Game Commissioner</i>
D. E. Forsland	<i>Superintendent of Game</i>
H. B. Watkins	<i>Superintendent of Fisheries</i>
T. W. Dalkin	<i>Director, Technical Division</i>
A. McCallum	<i>Administrative Accountant</i>
C. B. Kenway	<i>Registrar</i>
Miss R. Lavallee	<i>Personnel Officer</i>
Mrs. L. M. Brown	<i>Stationery &amp; Supplies</i>

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**EASTERN ROCKIES FOREST CONSERVATION BOARD**

Major General Howard Kennedy, C.B.E., M.C., B.Sc.,	<i>Chairman</i>
G. Tunstell	<i>Deputy Chairman</i>
H. G. Jensen	<i>Member</i>
J. P. Alexander	<i>Administrative &amp; Liaison Officer</i>
F. V. Keats	<i>Supt. Clearwater Forest Reserve</i>
L. R. West	<i>Supt. Bow River Forest Reserve</i>
F. N. H. Lind	<i>Supt. Crowsnest Forest Reserve</i>



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**REPORT**  
OF THE  
**Department of Lands and Forests**  
1952 - 1953

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HONOURABLE IVAN CASEY,  
*Minister of Lands and Forests,*  
Edmonton.

SIR:

I have the honour to submit the fourth annual report of the Department of Lands and Forests for the fiscal year ending March 31st, 1953.

Respectfully submitted,

H. G. JENSEN,  
*Deputy Minister.*

Edmonton, September 8, 1953.

## **Public and School Lands Administration**

REPORT OF THE DIRECTOR OF LANDS,  
V. A. WOOD

During the fiscal year under review there were 98,649 items of outgoing mail from the Lands Division, compared to 95,444 items for the previous fiscal year. This is a slight increase and indicates an increase in the volume of business conducted by the division.

Under the clearing and breaking contract 11 one-half section units, 7 in township 82, range 10, west of the 6th meridian and 4 units in township 82, range 11, west of the 6th meridian, north and west of the town of Spirit River, were completed in 1952. These units will be offered for homestead lease in 1953. In addition, the contractor partially completed brushing and piling on 43 units in township 82, ranges 10 and 11, west of the 6th meridian. In the fall of 1952 the contract between the government and Lassiter's Limited was terminated. It is proposed to open the 43 units, partially completed, for homesteading to eligible persons willing to assume the cost of brushing and piling completed on the units.

Improvements consisting of roads were completed during 1952 in the clearing and breaking project area between Tangent and Wanham, north of the Burnt River and into the Blueberry Mountain area.

The Western Provincial Land Directors' Conference was held in Regina from August 4th to 7th, inclusive. The conference was attended by representatives of the lands divisions from British Columbia, Alberta, Saskatchewan and Manitoba. The report of the conference includes several recommendations regarding problems of public land administration. As a result of these recommendations several changes have been made in the method of public land administration in this province.

The newly surveyed portions of townships 94 and 95, range 22, west of the 5th meridian; townships 95 and 96, ranges 20 and 21, west of the 5th meridian, were advertised and made available for the acceptance of applications for homestead leases at a temporary sub-agency held at the town of Peace River on the 27th and 28th of May, 1952. There were 126 applications accepted at this temporary sub-agency. The newly surveyed portions of townships 81, ranges 11 and 12, west of the 6th meridian; townships 82, ranges 8 and 12, west of the 6th meridian, were advertised and made available for the acceptance of applications for homestead leases at a temporary sub-agency held at the town of Spirit River on the 30th and 31st of May, 1952. There were six applications accepted at this temporary sub-agency. During the year many more applications for homestead leases were accepted in these townships.



During the fiscal year, surveys of the following townships were completed or partially completed and these townships will be made available for the acceptance of applications for homestead leases at Grande Prairie on the 26th and 27th of May, 1953 and at Peace River on the 29th of May, 1953.

township 82, range 7, west of the 6th meridian

township 82, range 9, west of the 6th meridian

township 82, range 10, west of the 6th meridian

township 82, range 11, west of the 6th meridian

township 83, range 12, west of the 6th meridian

township 83, range 13, west of the 6th meridian

township 67, range 22, west of the 5th meridian

township 68, range 22, west of the 5th meridian

township 71, range 16, west of the 5th meridian

township 71, range 17, west of the 5th meridian

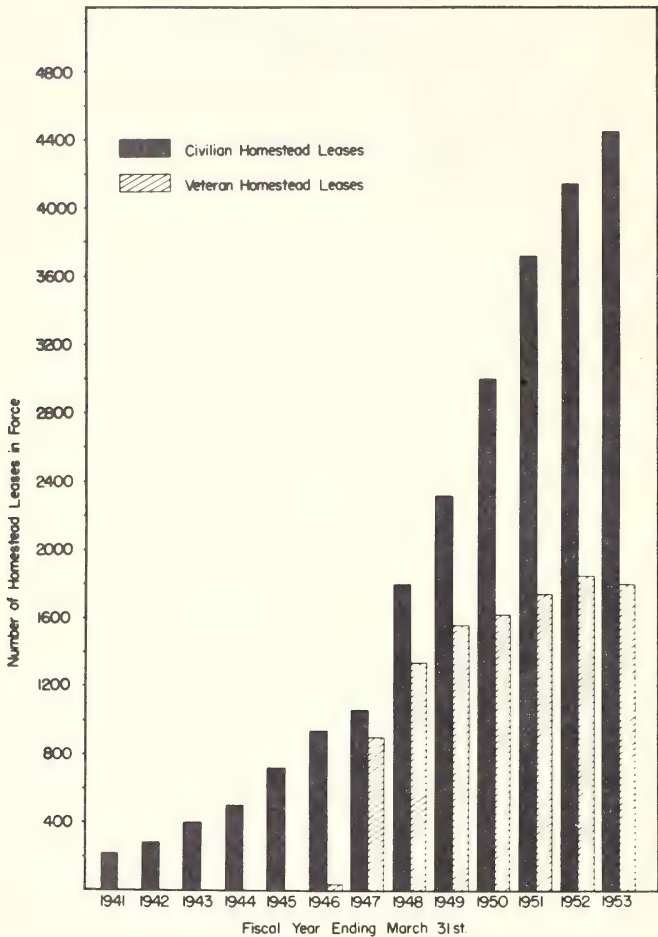
township 94, range 21, west of the 5th meridian

township 96, range 21, west of the 5th meridian

The report prepared by Stevenson and Kellogg Limited, Management Engineers, concerning the lands division administration was received in 1952. Most of the recommendations made in the report referring to the lands division have now been put into effect. One of the main recommendations referred to the necessity of establishing sections or groups within the lands division with a supervisor in charge of each section. In accordance with this, five sections have been established with a supervisor in charge of each section.

A total of 999 veteran and civilian homestead leases were issued during the fiscal year, a decrease of 232 from the 1231 issued for the previous fiscal year.

On March 25th, 1939, the granting of homesteads was discontinued and was replaced by the establishment of agricultural lease regulations. The first "agricultural lease" which is now designated "homestead lease" was issued on September 1st, 1940. Since that time the number of leases in force has been increasing steadily as is shown on the accompanying diagram.



#### ORDERS-IN-COUNCIL

The following are a few of the more important orders-in-council pertaining to the lands division which were passed during the fiscal year:

O.C. 443-52, March 31st, 1952.

Established regulations governing the issue of licenses of occupation on public lands for rights of way, drainage canals and

other specific purposes in so far as the Crown has the right to grant same.

O.C. 444-52, March 31st, 1952.

Established regulations governing the issue of head tax grazing permits on public lands. Head tax permits may be issued for the grazing of stock on available public land or on a grazing reserve for a period not exceeding one year.

O.C. 997-52, July 5th, 1952.

Established regulations governing the issue of townsite leases on public lands.

O.C. 998-52, July 5th, 1952.

This order - in - council rescinded orders-in-council 497-49 and 499-49 which established the settlement and non-settlement areas in the province. By a ministerial order new settlement and non-settlement areas were established.

O.C. 1389-52 and 1390-52, September 22nd, 1952.

These orders-in-council authorized the Minister to sell vacant and available public lands located in the Bow River Irrigation Project to the Colonization Manager of the St. Mary and Milk Rivers Development Project. The lands sold were for settlement purposes and were to be settled on a similar basis as lands sold to the Colonization Manager located in the St. Mary and Milk Rivers Development Project.

O.C. 1391-52, September 22nd, 1952.

Established regulations granting military protection to agricultural and homestead lessees.

O.C. 1813-52, December 15th, 1952.

This order-in-council provides for a royalty of five cents per cubic yard for sand and gravel removed from a lease by a railway company when such sand and gravel is required for ballast purposes. A minimum annual royalty of \$50.00 is payable by the railway company.

## AMENDMENTS TO THE PUBLIC LANDS ACT

There were several amendments pertaining to the administration of public lands passed during the 1953 session of the legislature and contained in chapter 94 of the Statutes of Alberta. The following are a few of the more important amendments.

### Section 18

By an amendment to this section a homestead lessee will not be required to commence residence duties until the fourth year of the term of the lease and will then be required to do six months residence duties each year thereafter. Residence duties for lands in the clearing and breaking project will commence in the second year.

## Section 21

By an amendment to this section the breaking and cropping requirements for a person doing residence on leased land are now the same as for a lessee performing residence duties on vicinity land.

## Section 63, subsection 3

Changes the due date for payment of rental on grazing leases from the 1st of February to the 1st of May for leases held by grazing associations and to the 1st of April for all other grazing leases.

## Section 72a

Stipulates that a grazing lease held by a grazing association shall be operated for the benefit of the residents in the district.

The registration of assignments of Crown Lands Act was repealed during the 1953 session of the legislature which means that no further unearned increment tax will be collected for assignments of leases, permits or sales of public lands administered by the lands division. In lieu of the unearned increment tax a schedule of fees for assignments will be established.

## CROP CONDITIONS

Due to the wet fall in 1951 threshing of the remainder of the 1951 crop was completed in the spring of 1952 under favourable dry weather conditions.

Generally the weather for 1952 was favourable throughout the season and as a result the crops were good as indicated in the estimated average yields for the various crops as shown below.

Cutting of the 1952 crop was commenced about August 18th in the south and September 4th to the 8th in the Peace River District. Dull weather in September stopped threshing, but swath-ing continued, resulting in much grain being swathed on the green side. There was some frost damage in September. Hail damage was about average. There was ideal harvest weather in October which permitted the completion of threshing and fall cultivation.

Estimated average crop yields for 1952 were as follows:

<u>Crop</u>	<u>Bushels per Acre</u>
Wheat _____	26.9
Oats _____	49.9
Barley _____	35.4
Rye _____	22.0
Flax _____	13.9

The crop failure basis for 1952 for cultivation or homestead leases was established as follows:



Wheat and rye \_\_\_\_\_ less than 4 bushels per acre  
 Oats and barley \_\_\_\_\_ less than 5 bushels per acre  
 Flax \_\_\_\_\_ less than 2 bushels per acre

All other crops were considered a failure when the value of the yield was less than \$3.00 per acre.

Prices estimated by the Canadian Wheat Board for the crop year commencing August 1st, 1952, basis in store at Fort William for number one grades were:

Wheat \_\_\_\_\_ \$1.40 per bushel  
 Oats \_\_\_\_\_ .65 per bushel  
 Barley \_\_\_\_\_ .98 per bushel

Flax and rye were again sold on the open market, and prices for 2CW flax ranged from \$2.94 to \$2.48 and rye from about 89¢ to \$1.45 per bushel.

The price of wheat was increased by 20¢, Durham wheat 25¢ and barley 15¢ as at March 1st, but no interim payment was declared on oats.

Prices for all grass seed, except Creeping Red Fescue, declined drastically, consequently most advance payments for grass seed were above the final price.

Canadian Wheat Board adjustments on bonus payments have been taken over by the Accounts Branch and will be included in their report.

Settlement of crop share accounts is becoming more and more difficult, due to the use of combines, which do not have weighing devices, and to a lack of elevator storage space resulting in the lessee selling his grain in small amounts, by quota, at different times of the year. Consequently part of the 1952 crop was not sold by March 31st, 1953. Despite these handicaps in marketing grain the inspectors assisted greatly in settling as many accounts as possible.

#### SALES OF LAND

During the fiscal year, a total of 381 parcels of school and public lands were offered for sale by public auction throughout the province. One hundred and fifty-two of these parcels were public lands and of this number 104 parcels were sold. The lands located in areas reserved from settlement are not being offered for sale; and in the settlement area, only lands which are not suitable for homestead and those designated as school lands, are offered for sale by auction. The average price received for the public and school lands sold by auction was \$17.31 per acre. This is a greater average than for the preceding year and is considered satisfactory. The highest price paid for a parcel of land was \$99.00 per

acre for a parcel of land offered for sale at Three Hills.

### SUB-AGENCIES

Public lands sub-agencies were maintained at Bonnyville, Lac La Biche, Peace River, Edson and Rocky Mountain House. The Office of Information, Calgary, was also continued.

Temporary sub-agencies for one or two days a month were continued at High Prairie, Falher, Manning, Hines Creek, Valleyview, Cherry Point, Spirit River, Fort Vermilion and Grande Prairie. Due to the amount of departmental business, and public demand, arrangements were made to establish a permanent sub-agency at Grande Prairie on April 1, 1953, with Mr. Watson as sub-agent.

### INSPECTIONS

The inspection work was carried out by fourteen permanent and one temporary inspector. During the winter and early spring, when unable to work in the field, the permanent inspectors were preparing lists of land to be offered for sale by public auction and doing other office work. They also conducted the auction sales of school and public lands throughout the province.

The following is a summary of field inspections:

#### Soil Survey (Applications for homestead leases):

Requests outstanding at April 1st, 1952	468
No. of reports called during fiscal year	1012
No. of reports received during fiscal year	1198
Reports outstanding at March 31st, 1953	282

#### General, Grazing and School Lands:

Requests outstanding at April 1st, 1952	1443
No. of reports called during fiscal year	3944
No. of reports received during fiscal year	3581
Reports outstanding at March 31st, 1953	1806

### COLLECTIONS

The Inspector of Collections was in the field from April 15th until late December, when weather conditions made further travel impracticable.

Approximately 600 calls were made including collections and inspections in connection with applications for renewal of cultivation leases in all parts of the province except the Peace River area. During the winter of 1953 eight weeks were spent arranging for and holding sales of Crown lands.

Collections of \$50,649.67, including old accounts, were remitted to the department by the Inspector of Collections and he also obtained a large number of grain storage tickets on account of the department's share of crop.

The following is a summary of other business transacted:

ACCRUED AREA LEASES	<u>Number</u>	<u>Area in Acres</u>
Leases in force at April 1, 1952 _____	770 _____	47,970.95
Leases issued during fiscal year _____	75 _____	3,747.27
Leases cancelled during fiscal year _____	58 _____	3,680.58
Leases in force at March 31, 1953 _____	787 _____	48,037.64

#### HOMESTEAD LEASES - CIVILIAN

Leases in force at April 1, 1952 _____	4,131 _____	945,089.10
Leases issued during fiscal year _____	869 _____	222,769.85
Leases cancelled during fiscal year _____	413 _____	106,778.25
Leases patented during fiscal year _____	105 _____	20,547.46
Leases in force at March 31, 1953 _____	4,482 _____	1,040,533.24

#### HOMESTEAD LEASES - VETERAN

Leases in force at April 1, 1952 _____	1,842 _____	496,710.54
Leases issued during fiscal year _____	130 _____	37,504.85
Leases cancelled during fiscal year _____	105 _____	29,950.04
Leases patented during fiscal year _____	60 _____	14,811.99
Leases in force at March 31, 1953 _____	1,807 _____	489,453.36

#### CLEARING PROJECT LEASES INCLUDED IN THE ABOVE TWO SECTIONS AT MARCH 31, 1953

Civilian _____	43 _____	13,805.01
Veteran _____	174 _____	55,741.86
Total _____	217 _____	69,546.87

#### LICENSES OF OCCUPATION

Licenses in force at April 1, 1952 _____	249 _____	5,685.85
Licenses issued during fiscal year _____	59 _____	1,112.68
Licenses cancelled during fiscal year _____	18 _____	333.37
Licenses in force at March 31, 1953 _____	290 _____	6,465.16

#### MISCELLANEOUS LEASES

Leases in force at April 1, 1952 _____	220 _____	8,835.77
Leases issued during fiscal year _____	45 _____	643.66
Leases cancelled during fiscal year _____	19 _____	280.14
Leases in force at March 31, 1953 _____	246 _____	9,199.29

## TOWNSITE LEASES

	<u>Number</u>	<u>Area in Acres</u>
Leases in force at April 1, 1952 _____	1	(Lot)
Leases issued during fiscal year _____	0	_____
Leases cancelled during fiscal year _____	0	_____
Leases in force at March 31, 1953 _____	1	(Lot)

## MINERAL SURFACE LEASES

Leases in force at April 1, 1952 _____	11	17,571.59
Leases issued during fiscal year _____	1	85.66
Leases cancelled during fiscal year _____	2	180.07
Leases in force at March 31, 1953 _____	10	17,477.18

## FUR FARM LEASES

Leases in force at April 1, 1952 _____	5	1,825.20
Leases issued during fiscal year _____	0	_____
Leases cancelled during fiscal year _____	0	_____
Leases in force at March 31, 1953 _____	5	1,825.20

## CULTIVATION LEASES

Leases in force at April 1, 1952 _____	564	101,608.25
Leases issued during fiscal year _____	39	7,237.99
Leases cancelled during fiscal year _____	43	7,670.81
Leases in force at March 31, 1953 _____	560	101,175.43

## PUBLIC LANDS SALES

Sales in force at April 1, 1952 _____	597	62,949.38
Sales granted during fiscal year _____	230	20,870.97
Sales cancelled during fiscal year _____	8	1,152.99
Sales patented during fiscal year _____	200	9,231.56
Sales in force at March 31, 1953 _____	619	73,435.80

## ROAD ALLOWANCE LEASES

Leases in force at April 1, 1952 _____	821	36,527.52
Leases issued during fiscal year _____	207	12,054.55
Areas added to existing leases _____	—	208.80
Leases cancelled during fiscal year _____	29	1,210.75
Decrease by withdrawal _____	—	24.10
Leases in force at March 31, 1953 _____	999	47,556.02



## RIGHTS OF ENTRY

Number

Rights of Entry in force at April 1, 1952 _____	312
Applications received during fiscal year _____	232
Rights of Entry cancelled during fiscal year _____	80
Rights of Entry granted during fiscal year _____	198
Applications pending at March 31, 1953 _____	223
Rights of Entry in force at March 31, 1953 _____	430

## EASEMENTS

Leases in force at April 1, 1952 _____	9
Leases issued during fiscal year _____	26
Leases cancelled during fiscal year _____	0
Leases in force at March 31, 1953 _____	35

## QUARRYING LEASES

Leases in force at April 1, 1952 _____	42
Leases issued during fiscal year _____	2
Leases cancelled during fiscal year _____	14
Leases in force at March 31, 1953 _____	30
These quarrying leases cover sand and gravel only.	

## SAND AND GRAVEL LEASES

Leases in force at April 1, 1952 _____	60
Leases issued during fiscal year _____	36
Leases cancelled during fiscal year _____	2
Leases in force at March 31, 1953 _____	94

## NOTIFICATIONS FOR TITLE

(Homesteads and Soldier Grant Entries)

Applications for Notification for Title on hand	
April 1, 1952 _____	54
Applications for Title received during fiscal year _____	5
Notifications for Title issued during fiscal year _____	4
Applications on hand (Checked and waiting completion) _____	55
Unpatented Homesteads and Soldier Grants _____	56
Cancellations of Homesteads and Soldier Grants _____	2

## MISCELLANEOUS PERMITS

Issued during fiscal year _____	625
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MISCELLANEOUS PERMITS	<u>Number</u>	<u>Area in Acres</u>
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For building sites on traplines issued during fiscal year _____	253	_____
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## GRAZING PERMITS

Issued _____	1, 578	285, 931.56
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## CULTIVATION PERMITS

Issued _____	71	1, 848.00
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## HAY PERMITS

Issued _____ (Total number of tons - 8, 345)	685	_____
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## HAY SEIZURES

Seizure _____	1	_____
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## ASSIGNMENTS REGISTERED

(Leases, Permits and Sales) _____	179	_____
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## GRAZING

The average price for all grades of cattle, except fed calves sold on the Calgary market during the period July 1st to December 31st, 1952, was 19.04¢ per pound, as compared with 29.46¢ per pound for the same period in 1951. Accordingly the rental and taxes per acre for the period from January 1st, 1953, to December 31st, 1953, on grazing leases and from April 1st, 1953, to March 31st, 1954, on grazing permits was reduced from 1952 as follows:

	<u>1952</u>	<u>1953</u>
One head to 24 acres _____	38 1/4¢	24 3/4¢
One head to 32 acres _____	28 3/4¢	18 1/2¢
One head to 40 acres _____	23¢	15¢
One head to 50 acres _____	18 1/2¢	12¢
One head to 60 acres _____	15 1/4¢	10¢

The grazing rentals on a head tax basis for 1953 on Provincial Grazing Reserves, are as follows:

Horses _____	\$1.75 per head, per month
Cattle _____	\$1.50 per head, per month
Sheep _____	\$ .12 per head, per month

Where no caretaker or other facilities are provided by the department the grazing rental on a head tax basis is as follows:

Horses _____	60¢ per head, per month
Cattle _____	50¢ per head, per month
Sheep _____	10¢ per head, per month

There were twenty-three Departmental Grazing Reserves and Community Pastures in operation in 1952 and one Community Pasture in the process of formation.

The following is a summary of the Grazing Reserves and Community Pastures:

#### DEPARTMENTAL RESERVES (Permanent Caretakers)

##### Vauxhall Provincial Grazing Reserve

The area of the Vauxhall Provincial Grazing Reserve, available for allotment in 1952, was approximately 136,000 acres, with 75 3/4 miles of two, three and four wire fencing belonging to the department. The area of this reserve is being reduced from year to year by the expansion of the Bow River Irrigation Project. The allotment system was continued in 1952 similar to that followed in previous years.

##### Twin River Provincial Grazing Reserve

The Twin River Provincial Grazing Reserve comprises an area of 21,388 acres with 24 1/2 miles of fencing. In 1952, 25 permits were issued to provide for the grazing of 1,170 cattle for a six-month period. The caretaker was resident on the reserve during the entire grazing season.

RESERVES HANDLED BY ASSOCIATIONS (Association responsible for upkeep and care of the stock).

#### Grazing Reserves under long term grazing leases by associations

<u>Name of Grazing Reserve</u>	<u>Area in Acres</u>
Blackfoot _____	24,614
Bluefield _____	11,602
Bow Island, M. D. of _____	24,366
Bowell West _____	8,171
Castle River _____	6,159
Chauvin District _____	1,113
Comrey _____	30,026
Cresthill Farmers Community _____	14,271
Drowning Ford _____	33,069

<u>Name of Grazing Reserve</u>	<u>Area in Acres</u>
Dunn Lake Cattle _____	3,596
Fir Grove _____	3,750
Hilda District _____	26,350
Jumping Pound _____	12,762
Many Island Lake _____	17,652
Nemiscam Community _____	4,781
Pipe Line _____	23,175
Poll Haven Community _____	10,462
Rock Coulee _____	4,432
Ross Lake Community _____	4,473
Stirling Pasture Co. _____	747
The Lakes _____	1,907
Tide Lake _____	14,344

The Tulliby Lake Provincial Grazing Reserve comprises an area of 22,000 acres. For 1952 the Provincial Grazing Reserve Permit was issued authorizing the grazing of 260 head of stock for a five-month grazing period.

A few head-tax permits were issued for the grazing of stock in the Brazeau-Athabasca area.

#### Long-term Grazing Leases

	<u>Number</u>	<u>Area in Acres</u>
Leases in force at April 1, 1952 _____	2,038	2,870,331.00
Leases issued during fiscal year _____	52	15,833.44
Leases renewed during fiscal year _____	9	10,546.83
Leases cancelled during fiscal year _____	68	28,204.32
Leases in force at March 31, 1953 _____	2,022	2,857,960.12

During 1952, regular grazing lease inspection work was carried out, which included the investigation of applications prior to the issuance of new leases, and inspection of leases on which renewal applications had been received, in order to determine that all lands applied for were non-agricultural and best suited for grazing.

Other work undertaken was the assessing of grazing lands to determine carrying capacity on new and existing grazing leases, investigation of complaints of lessees and inspecting leases to determine if they are being overgrazed.

In late August and part of September a grazing survey was undertaken in the High Prairie, Peace River, Grande Prairie and Beaverlodge districts of northern Alberta. In this survey all lands held under long-term grazing lease or grazing permit in 36 townships were inspected and carrying capacities were established. Prior to this survey grazing rates were set on a flat rate basis.



Additional work conducted by the inspection branch was the checking of applications received from lessees who requested assistance under the Range Improvement Program, which the department inaugurated in 1952.

The grazing inspectors kept a very close check in the southern portion of the province for a possible invasion of range weeds from the United States, especially two noxious range weeds, namely, goat weed and Halogeton glomeratus, the latter being very poisonous to sheep. So far these plants have not been discovered in Alberta.

Details pertaining to the revenue in connection with the administration of public lands may be found in the report of the accounting division of this department.

NOTE: The term "leases cancelled during fiscal year" includes leases which expired.

#### SCHOOL LANDS

There were 229 parcels of school lands listed for sale by public auction, of which 190 parcels were sold. This is approximately one-quarter of the number of parcels listed for sale during the previous year but a higher proportion of the parcels listed were sold. The amount collected on new school land sales during the fiscal year was \$139,113.96.

The total revenue derived from school lands sales accounts during the fiscal year was:

Principal _____	\$ 366,000.98
Interest _____	\$ 61,502.25
Total _____	\$ 427,503.23

The following is a summary of other school land business transacted:

SCHOOL LAND SALES	<u>Number</u>	<u>Area in Acres</u>
Sales in force at April 1, 1952 _____	1,595	244,493.28
Sales granted during fiscal year _____	212	31,940.61
Sales patented during fiscal year _____	92	12,292.51
Sales cancelled during fiscal year _____	10	1,469.35
Sales in force at March 31, 1953 _____	1,705	262,672.03

#### MISCELLANEOUS LEASES

Leases in force at April 1, 1952 _____	70	3,119.66
Leases issued during fiscal year _____	9	199.28
Leases cancelled during fiscal year _____	5	55.11
Leases in force at March 31, 1953 _____	74	3,263.83

LICENSES OF OCCUPATION	<u>Number</u>	<u>Area in Acres</u>
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Licenses in force at April 1, 1952 _____	49	519.24
Licenses issued during fiscal year _____	12	12.84
Licenses cancelled during fiscal year _____	2	2.30
Licenses in force at March 31, 1953 _____	59	529.78

## CULTIVATION LEASES

Leases in force at April 1, 1952 _____	1,228	247,468.87
Leases issued during fiscal year _____	133	25,610.60
Leases cancelled during fiscal year _____	168	33,165.82
Leases in force at March 31, 1953 _____	1,193	239,913.65

## GRAZING PERMITS

Issued during fiscal year _____	1,333	410,800.45
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## CULTIVATION PERMITS

Issued during fiscal year _____	28	828
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## HAY PERMITS

Issued during fiscal year _____	133
(Total number of tons - 1,898)	

## HAY SEIZURES

Nil

## ASSIGNMENTS REGISTERED

Leases, Permits and Sales _____	115
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Statement of revenue pertaining to School Lands may be found in the report of the accounting division.

NOTE: The term "leases cancelled during fiscal year" includes leases which expired.

## STAFF

Three members of the lands division staff, after having given many years of faithful service, were retired during the past year,

namely Mr. A. B. Spence, Assistant Director of Lands, Mr. Peter Cooke, land inspector and Miss M. L. Speer, correspondent clerk.

Mr. E. P. Shaver was appointed Assistant Director of Lands to replace Mr. Spence.

I wish to express my appreciation for the co-operation and the faithful service rendered by the staff of the lands division during the past year.

## Forestry

### REPORT OF THE DIRECTOR OF FORESTRY

E. S. HUESTIS

During the year under review, a company of efficiency experts from Stevenson-Kellogg of Vancouver made an exhaustive study of various branches of the Department of Lands and Forests, including the Forest Service, and submitted a report. The report contained numerous suggestions to give more efficient service to the public with a proposed decentralization of activities in connection with the issuance of settlers' timber permits. The report outlined various suggestions with regard to additional staff and equipment for forest fire protection throughout the Province. All of the report was carefully reviewed by departmental officials and it was realized that it would take several years to put the suggestions into operation. However, the estimates being prepared for the following fiscal year were based on carrying out the first part of the proposed plan.

#### FIRE

##### (a) Fire Season

The weather, from a fire protection standpoint, was quite favourable throughout most of the fire season and the fire hazard seldom went above normal, with the exception of two short periods, one in May and the other in September, on the northern divisions.

##### (b) Fire Prevention

The policy of only issuing permits to burn after inspection by a forest officer was continued, and again proved very successful in the prevention of settlers' fires.

Fire prevention activities were continued as in previous years by personal contact, publicity through the press and radio. The Canadian Forestry Association again made a very successful tour of the forested areas showing fire prevention films.

##### (c) Fire Detection

The present lookout system again functioned very well, but owing partly to the limited coverage a great many fires were again first reported by forest officers and other agencies. The number of fires first reported by different agencies is listed below:

Forest Officers	Lookout Towers	Public	Railwaymen	Aircraft
52	21	66	27	12

Percentages:

29	12	37	15	7
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##### (d) Fire Suppression

Suppressive action was taken on 178 fires by the Forest Service. Of the fires in the forest protection area, 100 (56 percent)

originated on the agricultural zone and 78 (44 percent) on the forest zone. These 178 fires burned over a total area of 484,313 acres consisting of 299,412 acres of forest lands and 184,901 acres of non-forested lands. Total loss is estimated at \$1,283,407.00 and suppression costs were \$70,197.00.

(e) Prosecutions

A total of 75 prosecutions were instigated by the Forest Service staff under The Forests Act, Part III, and 14 under The Game Act.

Of the above, 68 convictions were obtained under Part III of The Forests Act and 13 under The Game Act.

(f) Personnel

Several changes occurred through transfers, resignations and other causes, but all vacancies were filled either by promotion or appointment of new men. Three new lookout positions were authorized and filled. No other new positions were authorized.

(g) Firefighting Equipment

No new equipment was obtained other than replacements for worn equipment and loss.

(h) Co-operation

Very good co-operation was received from the Royal Canadian Air Force in reporting smokes sighted, and in many cases from the Canadian Pacific Air Lines and private pilots.

The Royal Canadian Mounted Police continue to give us their co-operation, especially in the gathering of fire crews and prosecuting infractions.

Co-operation by the general public continues to improve, especially in the matter of reporting fires.

(i) General

Aircraft were employed very successfully on different occasions in scouting and locating fires in areas not covered by lookout towers. On a very few occasions we received authority to transport men by aircraft, to a lake in the vicinity of a newly discovered fire. On these occasions we were invariably successful in controlling the fire in a short period of time.

In spite of a great deal of publicity through the radio and press, and in spite of a conducted tour of publicity carried out by the Canadian Forestry Association through most parts of Alberta, there are still far too many fires occurring through carelessness of the public. Most people in these areas are, either directly or indirectly, dependent upon the forests for their livelihood and it would appear that they should acquire a sense of responsibility to protect the forests. During the year under review the fire hazard was not



extreme. The fires in general were not considered large, but the number was almost as high as in the previous year, which was considered a high hazard year. It would appear, therefore, that the people who live in the forested area are still careless with fire, to the extent that they are not protecting their own interests, by keeping down the losses of timber resources.

#### MISCELLANEOUS

##### (a) Entomology

Our field staff again co-operated with the Dominion Forest Service Insect Survey and forwarded sample collections to the Kananaskis Forest Insect Laboratory.

##### (b) Pathology

Our field staff co-operated with the staff of the Dominion Pathological Laboratory in Calgary.

##### (c) Fish and Game

Our field staff again administered the Fish and Game Acts in the forested areas of the Province included in the old Northern Alberta Forest District and Brazeau-Athabasca Forest in a very satisfactory manner.

#### TIMBER

There was a decrease in the number of active timber operations throughout the province, but there was an increase in the production of lumber and other forest products.

On account of poor markets and increased freight rates, the amount of fire-killed pulpwood cut and shipped to the U. S. A. dropped from a 1952 high of 105,073 cords to 13,225 cords in 1953.

The demand for green lodgepole pine telephone and power poles has greatly increased. Production was double that of 1952-53. The poles are treated with preservative in plants located at Caroline, Calgary and Edmonton. The cutting of this type of material is an excellent thinning operation.

The lumber export market was not as good as last year but the local demand increased.

There was a slight increase in the prices of some forest products, but on the whole retail prices changed very little this year.

#### Forest Survey

The functions of the Forest Surveys Branch have been, first, to provide general information under the Provincial Forest Inventory useful for general planning; second, to provide detailed information concerning individual timbered areas under application for cutting rights; third, to make special studies of forest conditions as these are related to forest management; fourth, to provide forestry information as interpreted from aerial photos to other

divisions of the department and to the public. These functions shall be dealt with separately.

### Provincial Forest Inventory

During this fiscal year emphasis has been on completing, by March 31st, an inventory south of the 57th parallel. As this is the area under contract to Photographic Survey Corporation of Toronto, it has been their responsibility. Every effort was made to reach this objective, both by the Corporation and ourselves. It was their duty to produce the original work, and ours to check the photo interpretations of forest cover maps, totalling 294 maps, each containing on the average 275 square miles of forest land. It is satisfying to report that this phase of our provincial forest inventory was completed on time. Our four foresters who were on loan for the past four years to the Corporation under the agreement, were returned to Alberta.

A short summary of what has been accomplished is as follows:

This survey was produced from 99.997% interpretation of medium scale vertical aerial photographs and 0.003% ground work. That is, for every acre of forest land measured on the ground, 33,332 acres were classified by interpretation of air photos. Interpretation of forest types and the field work was completed progressively each year since the contract was signed in 1949.

As pointed out above, the principal source of information was the air photographs. Every effort, therefore, was made to have this information up to date throughout the whole area. In order to have up to date photographs of the required scale of 1320' to one inch, 34,000 square miles of the inventory area which had been photographed by the R. C. A. F. in 1945 and 1946 was rephotographed during the fall of 1952 under a contract given to Aero Surveys of Vancouver.

### Detailed Forest Cover Maps for Stumpage Sales

During the fiscal year ending March 31st, 1953, a total of 429 applications for license timber berths and special timber permits were handled by the Forest Surveys Division. In most cases, forest cover maps were prepared at the scale of four inches to one mile, using aerial photographs. The maps were for use by the field staff when cruising and estimating the timber on areas which were under application for cutting rights. Approximately 500,000 acres were mapped in detail for this purpose.

During the latter part of the year it was arranged that in the future, the Eastern Rockies Forest Conservation Board would prepare, in their Calgary office, the timber sale maps for the area under the Board's jurisdiction. This procedure has not had an appreciable effect on the flow of work, as of the 429 applications dealt with during the year, only 13 were in the Conservation Area.

### Forest Management

During the year a start was made in the preparation of forest management plans based on long-range goals, so that when the inventory results become available, management on a sustained yield can be established as quickly as possible. The preliminary work has been mainly a cut-over survey, the purpose of which has been to ascertain by field examination the net results of the present and immediate past timber disposal regulations as they have affected commercial timber stands in the N. A. F. D.

Other preliminary work started on forest management plans has been:

1. Source documents for setting up records by the punch card system.
2. Preparation of a procedure for inventory maintenance for changes such as cut-over and burned areas.
3. Considerable work has been done toward obtaining operation data from the major lumbering companies.

### Miscellaneous (Such as providing information to other divisions and to the public).

Information regarding forest cover on proposed homestead leases and land sales was supplied to the Lands Branch on fifty individual parcels of land.

Information from photographs has been supplied to other branches, the most important being the locating of possible sites for forestry lookout towers.

A counter service has been maintained to the public whereby assistance has been given to timber operators in locating individual blocks of timber so that their applications when submitted would be more correctly described as to location.

Volume estimates were made for the Primrose Lake Air Weapon's Range, and used in submitting a timber valuation to the Federal Government. In addition, there have been numerous individual estimates made for a number of areas under application for cutting rights on the range, so that permits would be issued without the necessity of a ground cruise.

### RADIO

During the year under review work was continued on the installation of the VHF FM circuits in the Eastern Rockies Area, although it was hampered to some extent by both bad weather conditions and shortage of personnel. The Board decided to add several more lookouts to the existing chain so that our installation work was increased.

In the remainder of the Province work is continuing as in previous years, with maintenance of existing equipment, installation

of mobile equipment in new vehicles and the installation of new equipment at new lookout towers. A total of fifteen radio-equipped towers are now completed in the Forest Protection Division and this number will be increased yearly over the next five or six years. Serious consideration is being given to the use of VHF circuits in some portions of the Forest Protection Division because our channels are becoming more and more over-loaded under the present assignment of frequencies in the medium wave spectrum. It is hoped that further studies in this connection will be made during the next fiscal year and that plans may be evolved for suitable circuitry in at least some portions of the Forest Protection area.

Plans are also being drawn to permit control of our remote receiving and transmitting equipment in the Edmonton Headquarters, by the use of radio circuits instead of wire lines. This planning is prompted by the fact that line trouble causes a fair amount of circuit outage over the period of a year and also by the requirements of the Alberta Civil Defence Communications network, in which the Lands and Forests stations form an important part. It is expected that this form of control will be established, and in use, before the end of the coming year.

The summary of the season's operations is appended and it is noted that traffic figures seem to have stabilized themselves, at least for the present.

#### SUMMARY OF THE YEAR'S OPERATIONS 1952-53

Lookout Stations - 60 & 100 Watt	Messages	Words
Adams Creek	520	6,485
Alder Flats	574	8,482
Brazeau	670	11,102
Carrot Creek	942	18,132
Goose Mountain	544	8,702
Heart Lake	1,239	24,271
Lovett	790	12,415
Mayberne	269	3,978
Nose Mountain	648	11,109
Puskwaskau	558	9,228
Pelican Mountain	563	8,817
Round Hill	447	6,425
Saskatoon Mountain	379	5,824
Swan Dive	143	1,440
Whitecourt	865	15,491
Total	9,151	151,901

Headquarter Stations	Messages	Words
Calgary	5,174	124,892
Edmonton	13,587	286,417
Edson	1,865	32,987
Grande Prairie	1,567	36,859
Lac La Biche	2,236	50,205
Peace River	1,544	37,833
Rocky Mountain House	366	7,123
Slave Lake	619	12,762
Total	26,958	589,078
Grand Total	36,109	740,979

### FORESTRY TRAINING SCHOOL

1952 marked the second year for the Forestry Training School carried out at the Dominion Forestry Kananaskis Experiment Station west of Calgary.

From experience gained in the previous year the curriculum was carefully reviewed with a view to giving proper emphasis to those subjects which would be of most value to the rangers on their return to their districts. It was also decided that there should be more field work than in the previous year and the weather was very favorable in carrying out this arrangement. It was further decided to concentrate more time on the subject of forest fire protection and other subjects which related to that very important aspect of the work.

As in the previous course, instructors were drawn from various Government agencies within the Province - University of Alberta, Dominion Forest Service, Dominion Department of Agriculture (Entomology and Pathology), Eastern Rockies Forest Conservation Board, Alberta Forest Service and the Fish and Game Branches. In addition, courses were given by the Search and Rescue Division of the Air Force and by Civil Defence. The school again came under the able guidance of Victor Heath. His assistant during this school term was S. R. Hughes, Assistant Forest Superintendent of the Bow River Forest Reserve in Calgary.

Twenty rangers were chosen again this year, fourteen from the forest protection branch and two from each of the three reserves.

The results of the first year's school have been very encouraging. The superintendents and inspectors have all reported that the men came back to their work with a very much better attitude and training to carry out their duties. This is particularly true as far as timber cruising is concerned.



## PERSONNEL

Over a period of years it has been difficult to attract the right type of man to our ranger staff. Part of this is due to the higher rates of pay being offered in industry, and part to the fact that many of our ranger headquarters are at isolated points and not attractive to a man with a wife and family. The turn-over of personnel remains about the same as in previous years.

## CONCLUSION

It is hoped that the better parts of the Stevenson-Kellogg report will be implemented in the years to come. The Forest Service within the northern part of the Province has been understaffed for many years, and districts covered by some rangers are extremely large. In order that forest protection and other work can be carried out in a satisfactory manner to conserve our natural resources, many of these districts will have to be cut in half and two men do the work where one man was formerly employed.

Our lookout system is not yet complete and in order that we may have complete coverage to detect fires when they originate and can be controlled when they are a small size, it will be necessary that many more lookouts be constructed in the next few years.

## FIRE SUPPRESSION

During the fire season of 1952 a total of 192 fires were dealt with as shown below in classes:

- 27 Class "A" or small fires (Less than 1/4 of an acre)
- 63 Class "B" fires (over 1/4 acre up to 10 acres)
- 68 Class "C" fires (over 10 acres up to 500 acres)
- 34 Class "D" fires (over 500 acres)

COMPARISON OF FIRE CAUSES BY PERCENTAGES  
FOR THE YEARS 1941 TO 1952 INCLUSIVE

CAUSE	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Campers	20.9	31.5	26.8	24.0	18.7	14.9	15.5	29.9	21.4	23.8	16.7	25.0
Smokers	2.2	3.3	7.5	6.5	8.8	5.5	6.6	12.5	9.6	10.1	23.8	9.4
Settlers	22.7	13.9	12.4	14.5	15.1	10.5	7.4	10.9	23.6	14.9	19.0	12.5
Railways	7.6	11.1	23.0	16.0	12.0	21.1	32.8	15.2	8.9	10.9	10.7	17.7
Lightning	1.6	.9	.4	3.4	6.0	4.4	4.1	3.8	6.8	8.9	8.3	3.1
Industrial Operations	1.4	3.6	1.9	3.6	3.5	9.5	4.9	8.7	3.5	4.0	6.0	7.8
Incendiary	10.8	6.9	5.7	6.8	6.0	2.9	4.1	2.7	7.3	8.0	8.3	12.0
Public Works	.2	.5	.4		.4				1.6	1.2		
Unclassified	8.8	10.2	7.5	6.5	13.4	6.9	.8	.6	3.9	6.9	6.0	4.2
Unknown	23.8	18.1	14.4	18.7	16.1	24.3	23.8	15.7	13.4	11.3	1.2	8.3

## DEPARTMENT OF LANDS AND FORESTS

COMPARISON OF FIRE LOSSES AND CAUSES  
BY PERCENTAGES FOR THE YEAR 1952

FIRE CAUSES	Number of Fires %	Merchantable Timber Losses Acres %	Total Acreage Burned %
Campers	25.0	7.4	34.4
Smokers	9.4	.5	.8
Settlers	12.5	9.7	14.9
Railways	17.7	—	.2
Lightning	3.1	—	1.8
Industrial Operations	7.8	.3	.1
Incendiary	12.0	79.3	46.1
Public Works	—	—	—
Unclassified	4.2	—	.1
Unknown	8.3	2.8	1.6

## RAILWAY FIRE LOSSES, CALENDAR YEAR 1952

## CAUSES AND NUMBER OF FIRES:

Railway Causes -	Number
Locomotives	26
Employees	8
Total	34

## NUMBER OF ACRES BURNED:

	Acres
Slashing or old burn	Nil
Timber land	8
Young growth	86
Non-forested	562
Total	656

## LOSS:

	\$
Timber	114.00
Young Growth	250.00
Forest Products	300.00
Other Property	Nil
Total	\$664.00

SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER  
AREAS FROM 1941 TO 1952 INCLUSIVE

YEAR	TOTAL FIRES	NON- FORESTED	FORESTED	TOTAL AREA	SUPPRESSION COSTS
	No.	Acres	Acres	Acres	\$
1941	445	459,475.00	895,949.50	1,355,424.50	170,488.58
1942	215	182,208.25	143,607.50	325,815.75	40,546.17
1943	265	409,503.50	105,645.75	515,149.25	22,286.77
1944	325	273,186.25	449,471.75	722,658.00	88,085.72
1945	284	128,263.50	88,473.00	216,736.50	64,001.53
1946	275	179,731.00	92,552.50	272,283.50	54,128.89
1947	122	46,894.75	33,166.00	80,060.75	19,875.55
1948	184	195,491.00	107,725.59	293,216.59	90,903.76
1949	314	552,184.65	908,862.25	1,461,046.90	248,635.47
1950	248	233,508.95	472,178.10	705,687.05	336,303.78
1951	84	13,303.00	10,565.00	23,868.00	25,092.00
1952	192	184,905.00	299,424.00	484,329.00	70,443.00
Totals	2,953	2,848,654.85	3,607,620.94	6,456,275.79	1,230,791.22

## ANNUAL SUMMARY OF FOREST FIRE LOSSES

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## FIRES WITHIN FOREST RESERVES

CAUSE	NUMBER OF FIRES					LANDS AFFECTED						LOSS								SUPPRESSION COSTS						
						OWNERSHIP		AREA	CONDITION			TIMBER (MERCHANTABLE AND CUT-OVER)								Loss of	Loss of					
	CLASS				Public	Private	Total	Merchantable Timber	Cut-over Timber	Young Growth	Not Forested	SALVABLE			UNSALVABLE			Loss	Loss of Timber	Young Growth	Other Property	Total Loss	Ranger Service	Other Expenditure	Total	
	A	B	C	D								Total	Saw-Timber	Other	Depreciation	Saw-Timber	Other									
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	M. Ft. B. M.	Cords	\$	M. Ft. B. M.	Cords	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Campers	8	—	—	—	8	—	—	Spot	—	—	—	—	—	—	1	—	2	2	—	—	2	27	—	27		
Smokers	—	3	—	—	3	7	—	7	4	2	—	1	—	—	—	95	65	65	8	—	73	100	30	130		
Settlers	—	1	—	—	1	7	—	7	—	—	4	3	—	—	—	—	—	—	—	—	—	18	—	18		
Railways	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Lightning	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Industrial Operations	—	1	—	—	1	—	—	Spot	—	—	—	—	—	—	—	—	—	—	—	—	—	71	—	71		
Incendiary	1	—	—	—	1	—	—	Spot	—	—	—	—	—	—	6	—	36	36	—	3,000	3,036	—	—	—		
Public Works	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Unclassified	—	1	—	—	1	2	—	2	—	—	2	—	—	—	—	—	—	—	20	—	20	—	—	—		
Unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
TOTALS	9	6			15	16	—	16	4	2	6	4	—	—	—	7	95	103	103	28	3,000	3,131	216	30	246	

## FIRES OUTSIDE FOREST RESERVES

Campers	2	16	15	7	40	156,141	10,480	166,621	8,748	104	72,964	84,805	10	50	—	2,075	76,050	72,573	72,573	488,704	—	561,277	1,359	16,777	18,136
Smokers	3	6	4	2	15	4,031	46	4,077	542	1	1,615	1,919	—	5,400	—	—	312	1,026	1,026	6,767	—	7,793	104	1,134	1,238
Settlers	2	1	13	7	23	70,130	2,100	72,230	11,482	2,050	38,723	19,975	4,550	225	338	6,841	222,065	198,909	199,247	17,489	—	216,736	435	21,597	22,032
Railways	2	20	12	—	34	534	122	656	8	—	86	562	—	80	92	—	10	22	114	250	300	664	146	387	533
Lightning	1	1	2	2	6	8,472	—	8,472	2	—	8,470	—	—	—	—	18	—	12,150	12,150	10,225	—	22,375	99	7,132	7,231
Industrial Operations	3	6	5	—	14	455	2	457	295	102	20	40	2	—	—	—	2,528	5,069	5,069	140	150	5,359	50	1,156	1,206
Incendiary	—	4	5	13	22	222,024	1,388	223,412	93,492	—	54,246	75,674	1,265	—	1,200	1,906	375,050	153,311	154,511	258,950	—	413,461	646	8,639	9,285
Public Works	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified	2	1	4	—	7	429	—	429	83	—	125	221	—	—	—	434	800	378	378	775	—	1,153	716	—	716
Unknown	3	2	8	3	16	7,609	350	7,959	3,248	—	3,006	1,705	48	—	—	8,299	21,510	39,787	39,787	14,802	—	54,589	604	9,216	9,820
TOTALS	18	57	68	34	177	469,825	14,488	484,313	117,900	2,257	179,255	184,901	5,875	5,755	1,630	19,573	698,325	483,225	484,855	798,102	450	1,283,407	4,159	66,038	70,197

## FIRES WITHIN AND WITHOUT FOREST RESERVES

Campers	10	16	15	7	48	156,141	10,480	166,621	8,748	104	72,964	84,805	10	50	—	2,076	76,050	72,575	72,575	488,704	—	561,279	1,386	16,777	18,163
Smokers	3	9	4	2	18	4,038	46	4,084	546	3	1,615	1,920	—	5,400	—	—	407	1,091	1,091	6,775	—	7,866	204	1,164	1,368
Settlers	2	2	13	7	24	70,137	2,100	72,237	11,482	2,050	38,727	19,978	4,550	225	338	6,841	222,065	198,909	189,247	17,489	—	216,736	453	21,597	22,050
Railways	2	20	12	—	34	534	122	656	8	—	86	562	—	80	92	—	10	22	114	250	300	664	146	387	533
Lightning	1	1	2	2	6	8,472	—	8,472	2	—	8,470	—	—	—	—	18	—	12,150	12,150	10,225	—	22,375	99	7,132	7,231
Industrial Operations	3	7	5	—	15	455	2	457	295	102	20	40	2	—	—	—	2,528	5,069	5,069	140	150	5,359	121	1,156	1,277
Incendiary	1	4	5	13	23	222,024	1,388	223,412	93,492	—	54,246	75,674	1,265	—	1,200	1,912	375,050	153,347	154,547	258,950	3,000	416,497	646	8,639	9,285
Public Works	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified	2	2	4	—	8	431	—	431	83	—	127	221	—	—	—	434	800	378	378	795	—	1,173	716	—	716
Unknown	3	2	8	3	16	7,609	350	7,959	3,248	—	3,006	1,705	48	—	—	8,299	21,510	39,787	39,787	14,802	—	54,589	604	9,216	9,820
TOTALS	27	63	68	34	192	469,841	14,488	484,329	117,904	2,259	179,261	184,905	5,875	5,755	1,630	19,580	698,420	483,328	484,958	798,130	3,450	1,286,538	4,375	66,068	70,443

## SUMMARY BY DIVISIONS

N. A. F. D.	18	57	67	34	176	469,765	14,488	484,253	117,900	2,257	179,195	184,901	5,875	5,755	1,630	19,573	698,325	483,225	484,855	797,502	450	1,282,807	4,159	65,780	69,939
Outside Res.	—	—	1	—	1	60	—	60	—	—	60	—	—	—	—	—	—	—	—	600	—	600	—	258	258
Clearwater	—	2	—	—	2	3	—	3	—	—	2	1	—	—	—	—	—	—	—	20	—	20	17	—	17
Bow River	7	—	—	—	7	—	—	—	—	—	—	—	—	—	—	7	—	38	38	—	3,000	3,038	82	—	82
Crowsnest	2	4	—	—	6	13	—	13	4	2	4	3	—	—	—	—	95	65	65	8	—	73	117	30	147
TOTALS	27	63	68	34	192	469,841	14,488	484,329	117,904	2,259	179,261	184,905	5,875	5,755	1,630	19,580	698,420	483,328	484,958	798,130	3,450	1,286,538	4,375	66,068	70,443

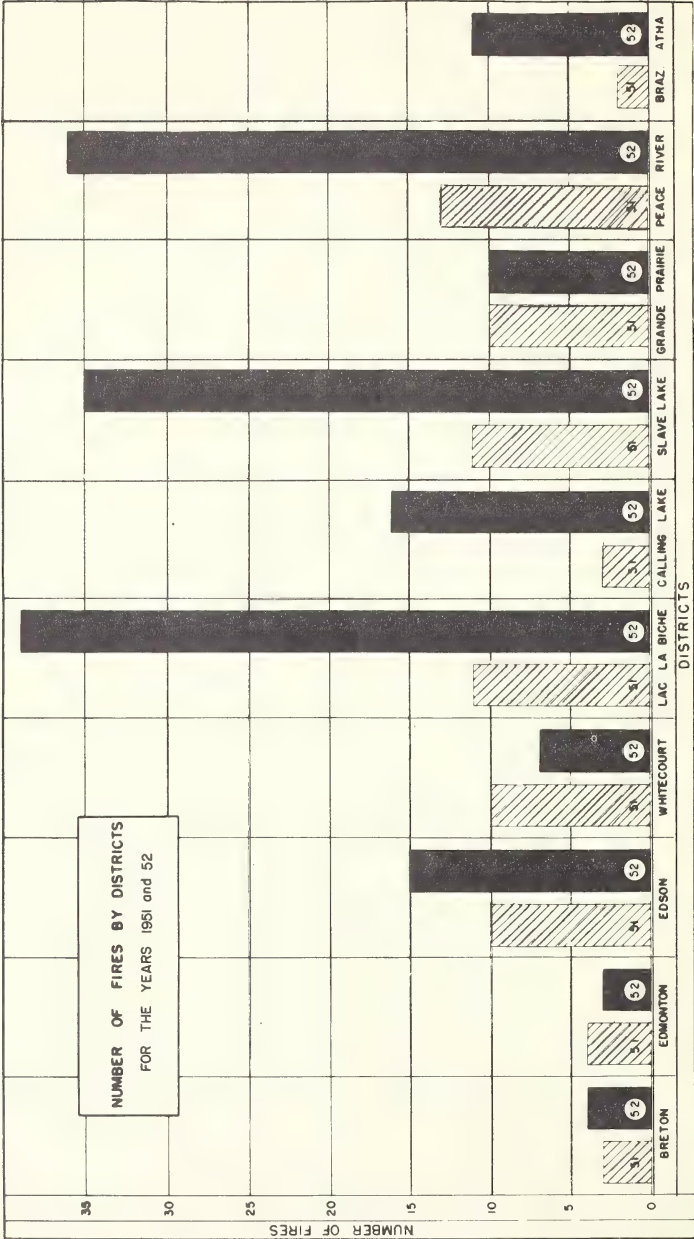


# FORESTRY

37

## ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC.

CAUSE	Within & Without Forest Reserves - Calendar Year 1952																									
	NUMBER						Damage \$	Area Acres	MONTHLY DISTRIBUTION												Fires Inside Forest Reserves		Fires Outside Forest Reserves			
									Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.						
	A	B	C	D	Total	P.C.																No.	Area Acres	No.	Area Acres	
Camp-fires	10	16	15	7	48	25.	561,279	166,621		1	1	8	17	5	2	2	3	3	7	1	8	7	40	166,621		
Smokers	3	9	4	2	18	9.4	7,866	4,084				2	7	1	2	1	3	3	2		3	7	15	4,077		
Settlers	2	2	13	7	24	12.5	216,736	72,237				3	16	2		1	1	1		1	1	7	23	72,230		
Railways	2	20	12		34	17.7	664	656				5	10	5	4	2	1	4	3				34	656		
Lightning	1	1	2	2	6	3.1	22,375	8,472					2	3		1							6	8,472		
Industrial Operations	3	7	5		15	7.8	5,359	457			1	5	2				1	1	2	3	1		14	457		
Incendiary	1	4	5	13	23	12.	416,497	223,412				2	18	1	1		1			1			22	223,412		
Public Works																										
Unclassified	2	2	4		8	4.2	1,173	431					5	2	1						1	2	7	429		
Unknown	3	2	8	3	16	8.3	54,589	7,959				3	11	1	1								16	7,959		
TOTALS	27	63	68	34	192	100	1,286,538	484,329		1	2	28	88	20	10	6	5	13	14	5	15	16	177	484,313		
Per cent.	14	33	35	18	100					0	1	15	46	10	5	3	3	7	7	3	8		92			





# AREAS OF FORESTED AND NON-FORESTED LAND BURNED OVER - 1952

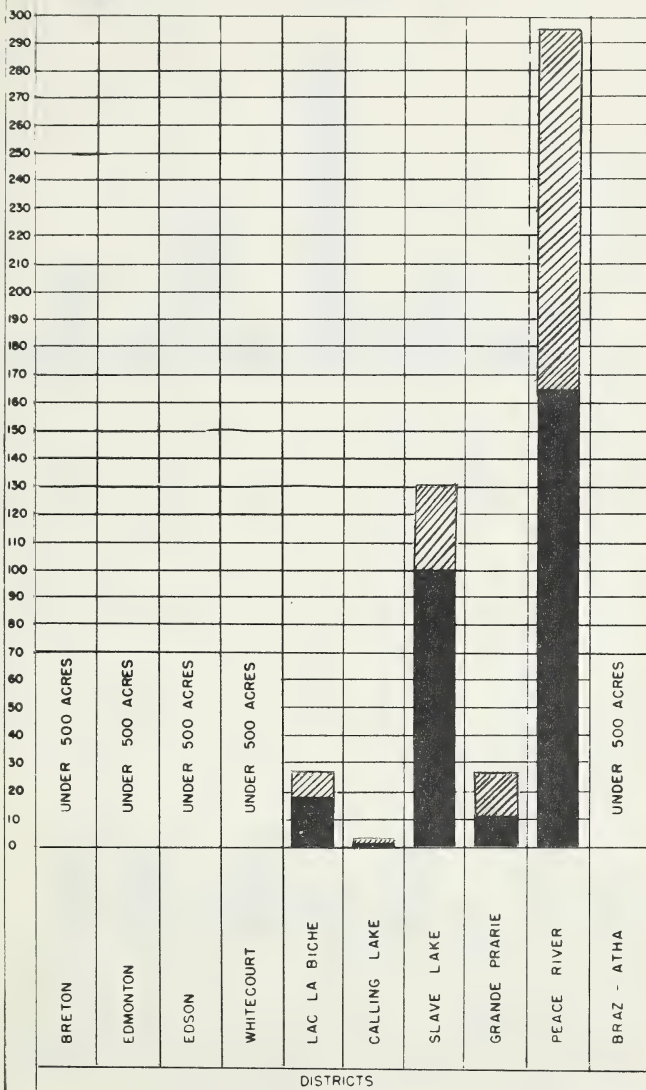


FORESTED AREA

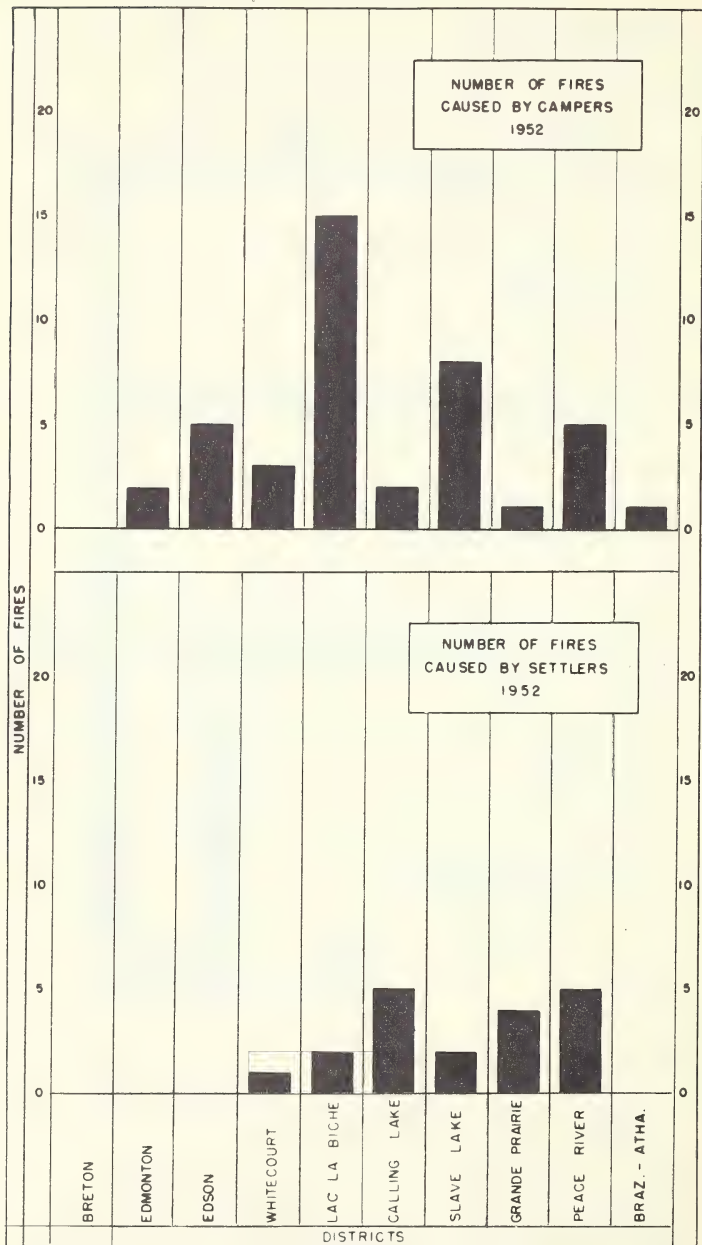


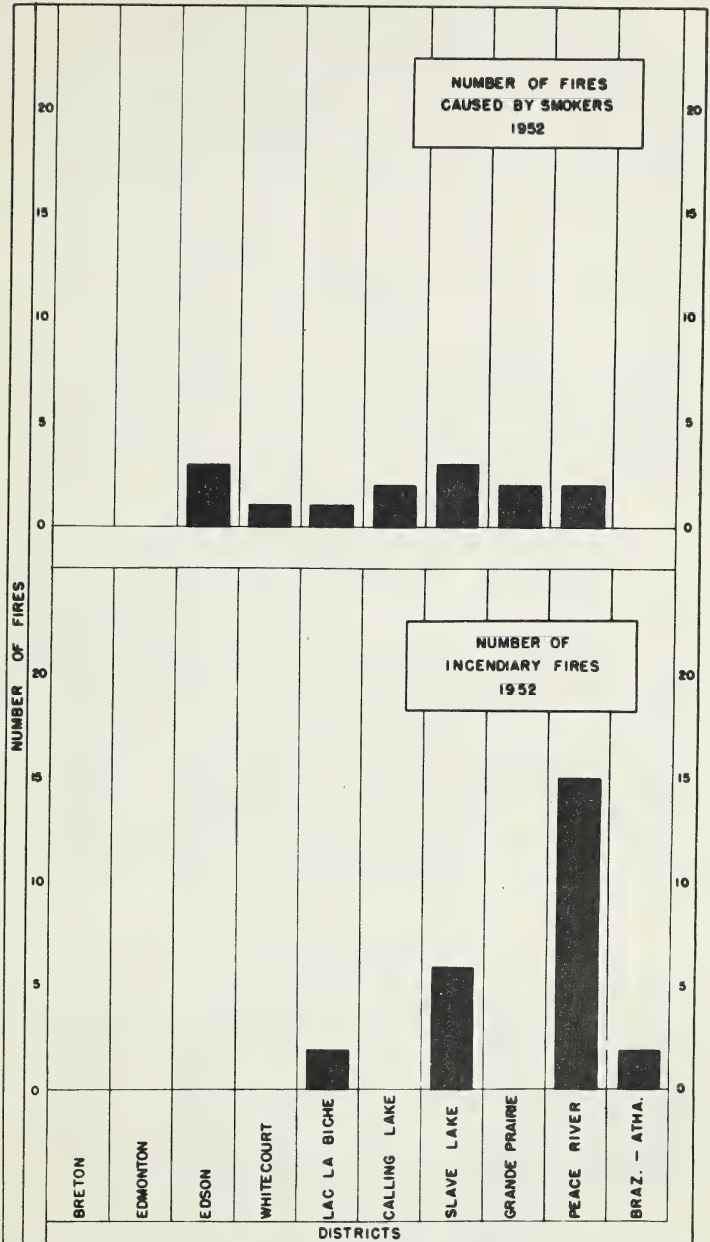
NON-FORESTED AREA

AREA IN THOUSANDS OF ACRES



DISTRICTS





## DEPARTMENT OF LANDS AND FORESTS

TIMBER CUT UNDER PERMIT ALBERTA FOREST RESERVES  
FISCAL YEAR 1952-53

	Bow River	Crowsnest	Clearwater	Total
Number of permits _____	55	152	29	236
Round timbers (lineal feet) _____	696,950	936,869	418,200	2,052,019
Fuelwood (cords) _____	349	289	40	678
Lumber (F. B. M.,) _____	68,963	285,043	100,000	454,006
Poles and Piling (lineal feet) _____	_____	9,974	1,050	11,024

TIMBER OPERATIONS ON ALBERTA FOREST RESERVES  
FISCAL YEAR 1952-53

	Bow River	Crowsnest	Clearwater	Total
Number of Active Operations _____	17	22	39	78
Lumber (F. B. M.,) _____	3,419,279	19,643,741	20,720,752	43,783,772
Round Timbers (lineal feet) _____	1,741,334	1,261,287	778,826	3,781,447
Poles and Piling (lineal feet) _____	_____	24,993	1,232	26,225
Pulpwood (cords) _____	_____	_____	1,673	1,673
Railway Ties (pieces) _____	_____	_____	30,934	30,934
Slabs (cords) _____	12	600	_____	612
Lath (pieces) _____	_____	1,227,500	_____	1,227,500

TIMBER OPERATIONS ON LANDS OUTSIDE OF FOREST RESERVES  
FISCAL YEAR 1952-53

	Timber Berths and Special Permits
Number of Active Operations _____	1,198
Fuelwood (cords) _____	5,664
Lath (pieces) _____	305,700
Lumber (F. B. M.,) _____	335,964,051
Round Timbers (lineal feet) _____	_____
Poles and Piling (lineal feet) _____	1,510,187
Pulpwood (cords) _____	4,666
Railway Ties (pieces) _____	1,557,045
Slabs (cords) _____	903
Mine Ties (pieces) _____	103,601
Shingles (pieces) _____	355,550
Shingle Bolts (cords) _____	194

## SETTLERS' TIMBER PERMITS

Number of Permits _____	2,979
Round Timber for Mines, Fencing, Corrals, Building Logs, etc. (lineal feet) _____	4,358,540
Lumber (feet board measure) _____	18,187,560
Fuelwood (cords) _____	4,630
Pulpwood (cords) _____	6,885
Shingle Bolts (cords) _____	16
Shingles (pieces) _____	72,000
Slabs (cords) _____	4
Lath (pieces) _____	100,000
Timber Seizures (number) _____	182

SUMMARY OF TIMBER OPERATIONS ON PUBLIC LANDS AND ALBERTA FOREST RESERVES  
FISCAL YEAR 1952-53

	PUBLIC LANDS		FOREST RESERVES		
	Timber Berths and Special Permits	Other Permits	Timber Berths and Special Permits	Other Permits	Total
Number of Active Operations	1,198	2,979	78	236	4,491
Fuelwood (cords)	5,664	4,630	—	678	10,973
Lath (pieces)	305,700	100,000	1,227,500	—	1,633,200
Lumber (F. B. M.)	355,964,051	18,187,560	43,783,772	454,006	398,389,389
Mine Ties (pieces)	103,601	—	—	—	103,601
Poles and Piling (lineal feet)	1,510,187	—	26,225	11,024	1,547,436
Pulpwood (cords)	4,666	6,885	1,673	—	13,225
Railway Ties (pieces)	1,557,045	—	30,934	—	1,587,979
Round Timbers (lineal feet)	—	4,358,540	3,781,447	2,052,019	10,192,006
Slabs (cords)	903	4	612	—	1,520
Shingles (pieces)	355,550	72,000	—	—	427,550
Shingle Bolts (cords)	194	16	—	—	210
Timber Seizures (number)	—	182	—	—	182

GRAZING STATEMENT  
ALBERTA FOREST SERVICE - 1952-53

Forest	No. of Permits	No. of Horses	No. of Cattle	No. of Sheep
Bow River _____	76	—	7,302	—
Crowsnest _____	179	51	12,634	1,800
Clearwater _____	28	146	456	—
Total	283	197	20,392	1,800

	Total for the Period 1931-53	Average Per Year
Number of Permits _____	10,715	466
Number of Horses _____	58,605	2,548
Number of Cattle _____	492,274	21,403
Number of Sheep _____	91,750	3,989



## IMPROVEMENTS - STATEMENT OF MAN-DAYS WORKED - FISCAL YEAR 1952-53

## NEW CONSTRUCTION PROJECTS

FOREST	Houses	Garages	Fences	Lookout	Water Supply Systems	Barns and Stables	Telephone Lines	Corrals	Bridges	Grounds	Trails	Cabins	Tourist Stoves	Roads Access	Radio	Misc.
Crowsnest	393.5	59.5	—	—	—	—	—	1.5	—	3.5	33	.5	19	65	10	77
Bow River	624	211.5	3	11	—	—	—	—	—	2	15.5	212	73	311.5	—	39
Clearwater	439.5	186.5	45	11.5	41.5	—	—	—	47	54.5	23.5	37	—	1	11	27
N.A.F.D.	—	28.5	14	293.5	—	—	115.5	—	4	51.5	19	235	—	523.5	—	3.5
TOTALS	1457	486	62	316	41.5	—	115.5	1.5	51	111.5	91	484.5	92	901	21	146.5

## MAINTENANCE

Crowsnest	70.5	29.5	91.5	.5	11.5	6.5	147	12.5	6	14	36.5	13	4	132	10	113
Bow River	69.5	16	197	—	27	35	138.5	11.5	—	116	34.5	18.5	8.5	264	10.5	9
Clearwater	24.5	14	155	—	8.5	16	122	19.5	—	36.5	185	38.5	—	105.5	—	24
N.A.F.D.	21	196	211.5	229	42.5	9.5	590.5	4	—	251	632	450.5	1	608.5	1	24.5
TOTALS	185.5	255.5	655	229.5	89.5	67	998	47.5	6	417.5	888	520.5	13.5	1110	21.5	170.5

## MODE OF TRANSPORTATION AND MILEAGE TRAVELLED BY EMPLOYEES

## OF THE ALBERTA FOREST SERVICE

FISCAL YEAR 1952-53

DIVISIONS	Foot	Saddle	Team	Speeder	Auto	Canoe	Rowboat	Motorboat	Plane	Railway	Bus	Others	Totals
N.A.F.D.	39,061	19,079	33,866	20,050	673,237	2,034	401	9,940	10,693	25,288	3,496	8,447	845,592
Crowsnest	1,564	3,233	125	—	63,539	—	—	—	—	1,000	560	842	70,863
Bow River	1,919	6,277	622	—	130,999	—	—	237	—	6,125	237	2,535	148,951
Clearwater	2,559	6,785	66	145	96,159	—	—	—	90	—	770	2,477	109,051
Radio	—	760	300	—	75,000	—	—	—	5,000	6,800	—	—	87,860
TOTALS	45,103	36,134	34,979	20,195	1,038,934	2,034	401	10,177	15,783	39,213	5,063	14,301	1,262,317

## EASTERN ROCKIES FOREST RESERVES

Report of Senior Superintendent - J. P. Alexander

## FOREST PROTECTION

(a) Fire Season

Snowfall during the 1951-52 winter was above average and a prolonged spring and satisfactory precipitation during the summer months delayed any appreciable fire hazard until late fall when a major dry period occurred during the greater part of the big game hunting season. Fortunately no serious fires resulted and the situation was relieved by snowstorms in late November.

(b) Fire Prevention

Fire prevention was carried on in the same manner as in recent years by means of posters, personal contact with reserve users and radio and press publicity. The Canadian Forestry Association's fire prevention publicity was also of benefit.

(c) Fire Detection

Ten lookout stations and ground patrol continued to constitute the principal fire detection system. A number of new lookouts will improve the overall efficiency and two of these were built during the season, but not manned. Co-operation by reserve users also serves as a useful detection medium.

(d) Fire Suppression

Eighteen fires were dealt with on the three reserves, none of them attaining serious size. Six of these fires were outside of the reserve boundaries, one of which accounted for the greater part of the damage of \$3,038.34, occurring outside the reserves.

Altogether 104 plus acres were burnt at a suppression cost of \$245.07, all but \$29.50 being reserve labor. Total damage was \$3,131.84.

Causes of fires were as follows: Campers - 9; Smokers - 4; Settlers - 2; Lumbering - 2; Public Works - 1; Total - 18.

(e) Personnel

Assistant Superintendent J. D. Clark of the Clearwater Forest resigned during the year and was succeeded by J. A. Schalkwyk of the Edmonton staff. Otherwise there were no changes in the supervisory staff.

The strength of the field staff remained the same although there were a number of changes in individuals due to transfers, resignations and new appointments.

(f) Firefighting Equipment

No new equipment was obtained as our supply is considered sufficient for the present.

## ADMINISTRATION

(a) Timber

Timber continued to be in demand and there were 68 active berths during the year, an increase of 17 over last year. Seven timber berths were completed and closed out during the year.

Seven special timber permits and two hundred and fifty-three settlers' permits were issued during the year.

(b) Grazing

Two hundred and eighty-three grazing permits were issued for 20,392 cattle, 197 horses and 1,800 sheep.

(c) Hay

Four permits for hay were issued for a total of 140 tons.

(d) Uses

Two hundred and fourteen grazing and miscellaneous use permits were issued during the year.

(e) Fish and Game

Fish and game patrol and control were carried on for a total of 1,068 man-days, the greater part of the time being spent during the big game hunting season.

(f) Recreation

With the greatly improved roads developed during the past few years, recreational use of the reserves is increasing to a marked degree on the three reserves. In addition, the use of the Clearwater Reserve is increasing to a considerable extent due to improved fishing in that area.

REPORT OF FOREST INSECT CONDITIONS  
IN ALBERTA IN 1953

George R. Hopping, Officer-in-Charge  
Forest Zoology Laboratory, Calgary

The Forest Insect Survey disclosed damage by a number of insects to forests and shelterbelt trees in various parts of Alberta. The most important were the forest tent caterpillar, the lodgepole needle miner, the American poplar leaf beetle, the larch sawfly, the black-headed budworm, the yellow-headed spruce sawfly, the lodgepole pine root weevil, and the spotted tussock moth. With the exceptions of the tent caterpillar, the larch sawfly, and the root weevil, damage was confined to very small areas in Provincial forests.

A combined air and ground survey showed that the heaviest defoliation of aspen by the tent caterpillar was just north of Chip Lake about 85 miles west of Edmonton. From there the patchy infestation extended northward to the Athabasca River westward

to Medicine Lodge and southward to a line between Sundre and Bearberry. Defoliation was noted along the Saskatchewan River as far as Saunders. Severe defoliation occurred west of Rimbey and a small amount of damage occurred at Springbank near Calgary. Usually control by spraying is not necessary because most of the trees recover satisfactorily. Control over small areas may become necessary if the caterpillars become too numerous near towns, resorts, or in municipalities such as Springbank.

The status of the lodgepole needle miner outbreak has changed little during the past year. In Banff Park the population is increasing again on the floor of the Bow Valley where it was heavily killed in the severe winter of 1949-50. Damage by this pest is still confined to the National Parks.

The American poplar leaf beetle caused heavy defoliation of aspen in the Porcupine Hills. The trees usually recover satisfactorily.

The larch sawfly population has risen to outbreak proportions over a considerable area west and north of Cold Lake. Heavy defoliation occurred in many of the larch swamps. Larvae were numerous in the Smith, Calling Lake, Athabasca and Westlock areas. A few larvae were found in the Coal Branch country, and in that part of the N. A. F. D. lying east of the Clearwater Forest District. It is apparent that the outbreak is spreading steadily westward and may cause considerable mortality of larch.

The black-headed budworm was found all along the East Slope but the only noticeable defoliation was near the Banff golf course.

Local but severe infestations of the yellow-headed spruce sawfly were found at many points: Cremona, Sylvan Lake, Edmonton, Rimbey, and others. Control is often necessary for ornamental trees and shelterbelts.

Over 90 per cent of lodgepole pines on some areas in the Strachan district have suffered severe root damage by a large weevil (*Hypomolyx* sp.). Similar damage was found in varying degree in many other localities of west central Alberta. Although no tree mortality could be attributed directly to this damage, it is almost certain that tree vigour is reduced with a consequent decrease in growth rate. The damage has been cumulative over a long period.

The spotted tussock moth caused severe defoliation of alder covering about one-half acre a few miles northwest of Athabasca.

Research work has been continued on the lodgepole needle miner, the spruce budworm, and bark beetles in lodgepole pine slash. A new project was initiated dealing with bioclimatology related to poplar insects with different micro-habitats.

The detailed life history of the lodgepole needle miner has been determined, precise population sampling techniques developed, and field trials have been started in an attempt to introduce a virus disease as a control factor.

The object of the spruce budworm study is to see if there are any consistent differences in environmental factors between stands of spruce and alpine fir where outbreaks have been recurrent over a considerable time and similar stands where outbreaks seldom, if ever, occur. Some interesting mesoclimatic and plant association differences have already been established.

Results of the bark beetle-slash project have indicated the type of cutting most conducive to bark beetle build-up. The biologies of the principal bark beetle species have been recorded and related to natural control factors such as parasites, predators, and sub-cortical and air temperatures.

It is too early to indicate any results of the bioclimatological studies related to poplar insects.

## FOREST DISEASE WORK IN ALBERTA IN 1952

Vidar J. Nordin

Forest Biology Laboratory, Calgary, Alberta

The 1952 field season marks the initial program of research in forest diseases undertaken by the new Forest Biology (Pathology) Laboratory which has been established to serve the region embracing the Province of Alberta, the Northwest Territories, and the Rocky Mountain National Parks. During this first year of organization and development the Laboratory has enjoyed the close co-operation and very helpful assistance accorded by the Alberta Department of Lands and Forests.

The new unit, temporarily accommodated in the Customs Building, has now been moved to permanent quarters at 102-11th Avenue East, Calgary. The third floor of this building has been entirely renovated to provide excellent facilities in offices and research laboratory rooms.

The following is a brief summary of the work initiated in 1952. More detailed information on any phase of the studies in progress can be obtained from the Laboratory on request.

## FOREST DISEASE SURVEY

The Forest Disease Survey has been organized as an essential mechanism to obtain information on the presence, distribution, and development of native and exotic tree diseases. This survey has verified that the dwarf mistletoe parasite (*Arceuthobium americanum* Nutt.) occurs throughout the range of lodgepole pine in the



National Parks, in the Rocky Mountain Forest Reserves south of the Clearwater Forest Reserve to the United States border, as well as in the Cypress Hills of Southeastern Alberta. The same organism parasitic on jack pine was noted in the vicinity of Lesser Slave Lake and at Calling Lake. Extensions of the present known distribution of this destructive disease will probably result from further survey studies. The lodgepole pine mistletoe was also discovered attacking white spruce at the Kananaskis Forest Experiment Station. The significance of this occurrence is being investigated.

A leaf spot of trembling aspen occurred in epidemic proportions in the Banff-Canmore area and was associated with the fungus, Marssonina tremuloidis Kleb.

Yellow witches broom attributed to Peridermium coloradense (Diet.) Arth. & Kern. was found to be ubiquitous on the black, Engelmann, and white spruce species in this region. Collections of the disease, which is made conspicuous by the typical witches brooms of the branches and terminals, were recorded for Wildwood, Smith, Nordegg, Whiteman's Creek, Mistaya River, Edson, Carrot Creek, Spray Gate, Celestine Lake, Eagle Creek, Crowsnest Forest Reserve, and at the Kananaskis Forest Experiment Station.

Hail damage, as evidenced by numerous scars on one side of the host, was conspicuous on eastern larch both at Rimbey and at Entwistle.

#### DECAY IN SPRUCE

In 1952, studies of the decays of sub-alpine spruce were initiated. These studies are designed to relate decay to site factors such as soil (pH, nitrogen content, texture, etc.) and flora; to examine relationships of organisms associated with decay; and to show the significance of decay to improved forest management inventory procedures and to factors as diameter, age, density and growth rate.

An analysis was made of 456 trees which were felled and critically examined for decay. Thirty-five per cent of the sample trees had some measure of decay. Of the infected trees, 22 per cent had root- and butt-rots and approximately 22 per cent had trunk rots. Preliminary compilations demonstrate a correlation between diameter and decay and age and decay. More detailed information on this investigation will be available shortly in an interim report under preparation.

#### RED STAIN IN PINE

A red stain condition in pine is responsible for serious losses in the pole and tie industries in the Province. Preliminary investigations on this problem are aimed to elucidate the identity and nature of the agents associated with red stain and to demonstrate

the importance of this abnormality in the utilization and management of pine forests. The initial studies have been located exclusively in fire-injured pine stands to show concurrently the significance of fire scars in the occurrence of stain and decay.

A dissection study has been made of 133 trees of lodgepole pine distributed in five 1/10-acre plots located in the vicinities of Strachan, Nordegg, and Water Valley. An unidentified fungus, arbitrarily named "Unknown L", was the most common organism isolated from red stain wood. Of the fungi identified in association with red stain, their frequency of occurrence is, as follows:

Fungus	Percentage of Infections
	%
Unknown L	85
<u>Fomes pini</u>	6
<u>Stereum sanguinolentum</u>	3
<u>Polyporus anceps</u>	3
<u>Poria taxicola</u>	1
<u>Fomes pini</u> and Unknown L	1
Unidentified	1

This means that, in the three areas and age class (84 years) examined, Fomes pini, the fungus previously thought to be the major cause of red stain, is a relatively minor organism associated with this abnormality. Three infections of brown cubical decay and 8 infections of white pitted decay were associated respectively with Coniophora puteana and Polyporus abietinus. A detailed illustrated report on this investigation is being prepared for distribution.

#### DETERIORATION OF SLASH OF LODGEPOLE PINE

This project, begun in 1952, has been designed on a long-term basis to assess the relation of different silvicultural cutting treatments to the subsequent rate of deterioration of slash; the relative effects of spraying of slash with nutrient and the artificial inoculation of slash with minced cultures of wood-destroying fungi; the identification, ecological succession, and significance of fungi associated with deterioration; the significance of moisture, temperature, pH, and other factors that may influence decay; and the role of insects in the deterioration and the distribution of slash fungi. This work is being undertaken in co-operation with the Forestry Branch, Department of Resources and Development, the Forest Zoology Unit, and the Alberta Department of Lands and Forests.

**Fish and Game Administration**  
**REPORT OF THE FISH AND GAME COMMISSIONER**  
**E. S. HUESTIS**

During the year under review Stevenson-Kellogg of Vancouver, a company of management consultants, made an exhaustive study of various branches of the Department of Lands and Forests, including the Fish and Game Branches, and submitted a report. The report contained numerous suggestions towards the amalgamation of the services of fish and game officers to more adequately cover both branches of the work within the various districts where officers are located. It is hoped that within the next year the proposed recommendations can be implemented.

The big game season of the fall of 1952 was conspicuous by the reopening of the moose season after a two year closure, due to the shortage of these animals in some areas and to their location in other areas where they were too close to transportation and too easily slaughtered. The big game hunting season was warm and dry with the result that hunting territory was extremely noisy. A careful check in certain areas showed that elk and deer were able to avoid the hunter when he arrived, but the moose, with his slower movements and possibly due to two years protection, became the principal target of big game hunters. It was found that at least 60% of all the big game killed of the antlered animals were moose. After a two year closure the drain on moose during the year was extremely high.

Because of the dry, warm fall the shooting success of big game hunters was not as good as in previous years. It was difficult to get close to the animals because of the noisy condition of the bush. Many hunters returned without having any luck.

The migratory bird situation was again extremely good. Surveys showed a further 48% increase in migratory waterfowl returning to the breeding grounds in Alberta and the brood count was again very high, giving us the highest migratory waterfowl population in many years. Statistics show that the hunter obtained a good share of the migratory waterfowl before they migrated to the south.

The upland bird situation, which had been extremely good in 1951, began to deteriorate in some districts. It was found that birds disappeared in certain areas, particularly north of Edmonton. This was presumably due to what is known as the cyclic crash. However, there was still excellent shooting in many areas, and hunters reported a good bag of most upland birds. Pheasants, particularly, seemed to be in fair supply in most districts in which they have become established.

The beaver population continues to increase and a great deal

more work had to be done by the department in removing beaver from settled areas, where they were causing some flooding of hay meadows, and from locations where they were causing flooding of roads and bridges. It is felt, that the benefits gained in the water storage ability of these animals more than offsets the minor difficulties encountered by certain farmers, and by the Department of Highways and Municipal Districts in the flooding of their roads. These difficulties can be overcome by corrective measures, and are taken care of as rapidly as possible by employees of the Game Branch.

The price of fur remained at a low level, except for certain species. Statistics show that more pelts were taken by trappers, but the return to the trappers and revenue to the department showed some decrease. Long-haired fur has been low in price for some years and, until milady changes her taste, this trend will probably continue.

The campaign against crows and magpies was carried on again by the Alberta Fish and Game Association and its local associations, using funds provided by the department. The results of the campaign were not as good as in previous years possibly due to the weather conditions during the period in which the campaign was operated. Reports received from different areas show that this campaign should be increased if we are to make any headway in cutting down the crow and magpie population. It would appear that, although the population fluctuates from time to time, there has been little gained in reducing the population through the efforts of this campaign.

Big game predators still remain a problem in many areas of the Province. The department, through fish, game and forest officers, is continuing their campaign against wolves and coyotes, the department supplying the necessary ammunition, poison, snares and traps to carry it out.

During the latter part of 1952 the rabies epidemic started in the northern part of the Province, north of Peace River. It was immediately necessary that trappers be employed to cut down the number of animals which might spread this disease into the settled areas of the Province. By the end of the fiscal year under review, it was essential to set up a double trapline on the edge of the forested area completely surrounding the settled area of the Province. For this purpose 170 trappers were employed and 5,000 miles of trapline were established. All trappers were supplied with every means possible to kill off predators and other animals which might spread the disease. It is expected that, as this program continues, the number of predatory animals should be reduced and this should have a very beneficial effect on the big game population in the forested area. It should also have an effect on the survival of those upland birds which frequent the edge of settlement and the edge of the forested area.

The interest in angling in trout waters of the Province continues to increase. Approximately 3,000 additional angling permits were issued during 1952 than for the previous year, bringing the total number of permits to 23,270.

The increase in commercial fishing was slight, with 5,159 fishermans' licenses and 280 commercial licenses being issued. This increase in licenses reflected an increase in the total catch of the principal species, of which just under ten million pounds were taken during the fiscal year. Of this total, slightly over three million were whitefish and five and one-half million tullibee. It is unfortunate that, even with an increase take, the market value was less, because of a slump in prices.

The most noteworthy increase in angling pressure, in trout waters, was the interest taken in the Canmore District, where a large number of anglers went into the new Spray Lake Development, where excellent catches of trout were taken from this lake. In addition, the Highwood system reopened in 1952 which increased the angling in that area, particularly with the opening of Trap and Sullivan Creeks, tributaries of the Highwood.

The catch per angler remains fairly steady. The average number of fish caught per angler was 20.2 as compared with 18 for 1951. It was noted that whereas the southern part of the Province produced larger catches, the Edson district showed a drop.

Angling for coarse fish such as pike, perch, pickerel and gold-eye is becoming more popular. No license is issued for this type of angling but it is felt that the number of anglers far exceeds those who take out licenses for the taking of trout.

A great deal of attention is being given by the Fisheries Branch to an examination of various lakes containing coarse fish with a view to increasing their production if at all possible.

The biological station at Gorge Creek, tributary of the Sheep River west of Turner Valley, was conducted for the third successive year. This is a research project carried out jointly with the University of Alberta to test the survival of hatchery-raised trout in streams typical of the Eastern Rockies. Information to date suggests a change in trout rearing procedures requiring trout fry to be placed in raceways at an early age so that they will become adapted to fight against fairly fast waters similar to those prevalent in East Slope streams.

The Fish and Game Branches wish to express their appreciation for the co-operation received from the Forest Service of the Department. The East Slope areas are supervised by the Forest Service and this is of great assistance to the Fisheries Branch. Our thanks are also due to the co-operation received from the R. C. M. P. in enforcement work. The Alberta Fish and Game



Association and its various locals are to be commended in their co-operative efforts with the fish and game branches, particularly in the distribution of fish and pheasants and the crow and magpie campaign.

## GAME

## COMPARISON OF THE NUMBER OF GAME LICENSES ISSUED

Kind	1949	1950	1951	1952
Resident Bird Game Licenses	34,829	36,308	39,190	50,965
Non Resident (Canadian) Bird Game Licenses	460	490	317	454
Non Resident (Non-Canadian) Bird Game Licenses	422	449	419	406
Resident Big Game Licenses	15,279	12,732	14,340	19,862
Non Resident (Canadian) Big Game Licenses	—	—	4	8
Non Resident (Non-Canadian) Big Game Licenses	139	98	119	84

## GAME LICENSES

April 1st 1952 to March 31st 1953

Kind	Number of Licenses	Fee	Total Amount
Residents' Bird Game Licenses	50,965	\$2.50	\$127,412.50
Non-Residents' (Canadian) Bird Game	454	5.00	2,270.00
Non-Residents' (Non-Canadian) Bird Game	406	50.00	20,300.00
Residents' Big Game Licenses	19,862	5.00	99,310.00
Non-Residents' (Canadian) Big Game Licenses	8	50.00	400.00
Non-Residents' (Non-Canadian) Big Game Licenses	84	100.00	8,400.00
Permit to Collect	27	Free	
Taxidermists' Licenses	6	5.00	30.00
Residents' Special	214	5.00	1,070.00
Non-Residents' Special	69	25.00	1,725.00
Guide's Licenses (Class "A" & "B")	140	2.50	350.00
Guide's Licenses (Class "C")	4	1.00	4.00
Game Farms	8	5.00	40.00
Outfitters' Licenses	34	25.00	850.00
Fur Farms	7	Various	42.00
Resident Trapper's Licenses	3,336	3.00	10,008.00
Permit to Trap Beaver	468	10.00	4,680.00
Dog Trainers	7	Various	75.00

## BOUNTY ON TIMBER WOLVES AND COUGARS-SEASON 1952-53

Timber Wolves and Cougars killed from April 1st, 1952, to March 31st, 1953.

476 Timber Wolves at \$12.00 each	\$5,712.00
555 Timber Wolves at \$15.00 each	8,325.00
35 Cougars at \$15.00 each	525.00

## LICENSED ALBERTA FUR FARMS

Beaver	4
Muskrats	3



## ALBERTA FUR PRODUCTION - SEASON 1952-53

## (WILD FUR)

Kind	Total Number of Pelts	Average Value of Pelts	Total Value of Pelts
Badger _____	39	\$ 1.78	\$ 69.42
Beaver _____	14,068	13.71	192,872.28
Ermine _____	182,589	1.32	241,017.48
Silver Fox _____	81	7.50	607.50
Cross Fox _____	431	3.85	1,659.35
Red Fox _____	675	2.00	1,350.00
White Fox _____	27	14.50	391.50
Blue Fox _____	2	6.58	13.16
Lynx _____	3,683	6.87	25,302.21
Marten _____	315	17.75	5,591.25
Mink _____	4,923	20.50	100,921.50
Muskrats _____	473,747	1.15	544,809.05
Otter _____	82	22.92	1,879.44
Jack Rabbits _____	5,758	.20	1,151.60
Bush Rabbits _____	6,420		
Skunk _____	86	1.25	107.50
Squirrel _____	976,967	.50	488,483.50
Coyote _____	4,554	2.00	9,108.00
Timber Wolf _____	175	7.00	1,225.00
Wolverine _____	18	18.00	324.00
Total	1,674,640		\$1,616,883.74

## CONVICTIONS UNDER THE GAME ACT, 1952-53

Number of Convictions \_\_\_\_\_ 232

## CONFISCATED FURS

Amount realized from the sale of confiscated fur during the period

April 1st, 1952, to March 31st, 1953 \_\_\_\_\_ \$1,568.92

## TRAP-LINE REGISTRATIONS

Number of Registered Trap-Lines and Revenue, April 1st, 1952,  
to March 31st, 1953

2,508 at \$10.00 _____	\$25,080.00
137 at \$20.00 _____	2,740.00
9 at \$ 1.00 _____	9.00

## FUR DEALERS' LICENSES, ETC.

Kind	Number	Revenue
Resident Fur Dealer's Licenses to carry on business in a city, and elsewhere than in a city _____	282	\$2,820.00
Non-Resident Fur Dealer's Licenses to carry on business in the Province _____	5	500.00
Resident Travelling Fur Purchasing Agent's Licenses _____	17	425.00
Furrier's Licenses _____	22	220.00
Tanner's Licenses _____	3	30.00

## FUR TAX REVENUE

Amount Collected \_\_\_\_\_ \$88,535,27

## MUSKRAT AND BEAVER

	Number
Muskrat Permits issued _____	290
Muskrat reported taken _____	26,526
Beaver Permits issued _____	719
Beaver reported taken _____	3,596

## FISH

## LICENSES AND PERMITS

	1948-49	1949-50	1950-51	1951-52	1952-53
Kind	No.	No.	No.	No.	No.
Angling Permits (Season) _____	11,832	17,208	18,658	20,303	23,270
Angling Permits (Limited) _____	1,151	1,788	2,181	2,113	2,318
Domestic Licenses _____	100	90	102	118	139
Fisherman's Licenses _____	3,088	2,581	3,617	4,926	5,159
Commercial Licenses _____	127	147	166	230	280
Fish Dealer's Licenses _____	97	93	124	119	93
Motor-Boat Licenses _____	23	32	40	73	32
Total	16,418	21,939	24,888	27,882	31,291

## COMMERCIAL PRODUCTION OF FISH

Species	1948-49	1949-50	1950-51	1951-52	1952-53
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Whitefish _____	1,759,816	1,869,849	2,108,434	2,745,433	3,113,007
Trout _____	3,463	15,177	9,154	8,393	10,886
Pike _____	559,797	592,782	376,458	513,049	475,485
Pickrel _____	259,044	135,656	127,622	224,135	142,446
Perch _____	46,555	54,265	19,098	58,972	192,775
Tullibee _____	4,339,130	3,159,532	3,591,704	5,004,601	5,703,285
Mixed Fish _____	255,096	456,799	378,630	355,911	297,932
Total	7,222,901	6,284,060	6,611,100	8,910,494	9,935,816

	Weight Lbs.	Value to Fishermen \$	Value as Marketed \$
Totals for year 1948-49 _____	7,222,901	374,991.83	636,396.01
Totals for year 1949-50 _____	6,284,060	377,114.44	652,538.06
Totals for year 1950-51 _____	6,611,100	381,018.63	652,000.34
Totals for year 1951-52 _____	8,910,494	617,834.15	946,535.62
Totals for year 1952-53 _____	9,935,816	629,847.60	899,720.32

## FISH EXPORTED FROM ALBERTA 1952-53

Species	Canadian Markets Lbs.	United States Markets Lbs.
Whitefish _____	32,244	1,597,444
Pickereel _____	2,475	80,820
Pike _____	9,931	71,476
Perch _____	2,770	168,744
Trout _____	—	7,823
Tullibee _____	—	66,430
Suckers _____	—	856
Total	47,420	1,993,593

	1951-52	1952-53
Prosecutions _____	100	137
Confiscations _____	52	101

## STOCKING OF ANGLING WATERS 1952

Species	Eyed Eggs No.	Fingerlings No.	Yearlings No.	Adult No.
Rainbow trout _____	—	162,261	5,627	—
Eastern Brook trout _____	—	—	35,756	—
Cutthroat trout _____	32,450	18,000	13,218	—
Loch Levan trout _____	—	2,780	12,267	—
Lake trout _____	100,000	—	—	—
Salmon _____	—	86,876	—	—
Cutthroat )	—	—	—	—
Eastern Brook ) mixed _____	—	—	3,512	—
Loch Leven )	—	—	—	—
Perch and Pike _____	—	—	—	140,266
Pickereel _____	2,500,000	—	—	—
Total	2,632,450	269,917	70,380	140,266

TOTAL DISTRIBUTION - 3,113,013

Preliminary biological surveys carried out during 1952:

THE RED DEER RIVER DRAINAGE:

Bighorn Creek  
Eagle Creek and Eagle Lake  
Wildhorse Creek  
Fisher Creek  
Yara Creek  
Fallen Timber Creek

THE PEACE RIVER AND GRANDE PRAIRIE DISTRICTS:

The Heart River Development  
Fairview Reservoir  
Saskatoon Lake  
Cutbank Lake  
Anderson Lake  
Albright Lake  
Sinclair Lake  
Hythe Reservoir  
Grande Prairie Reservoir

IMPOUNDMENTS AND IRRIGATION RESERVOIRS:

St. Mary Irrigation Reservoir  
Armstrong and Cooper Reservoirs, near Irvine  
Gros Ventre Reservoir, near Medicine Hat  
Thomas Dam, near Alliance  
Berry Creek Reservoir, near Hanna

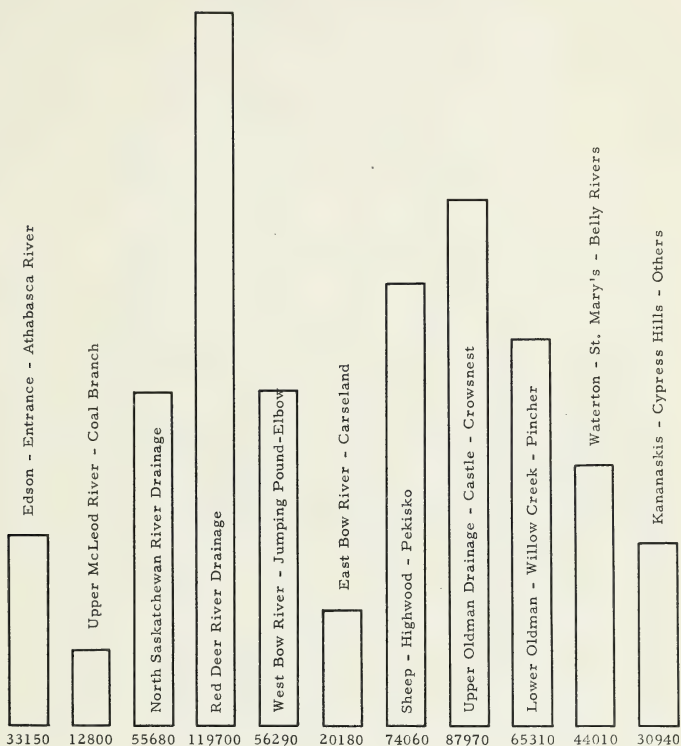
HEINSBURG DISTRICT:

Borden Lake  
Laurier Lake  
Ross Lake  
Whitney Lake

OTHER LAKES:

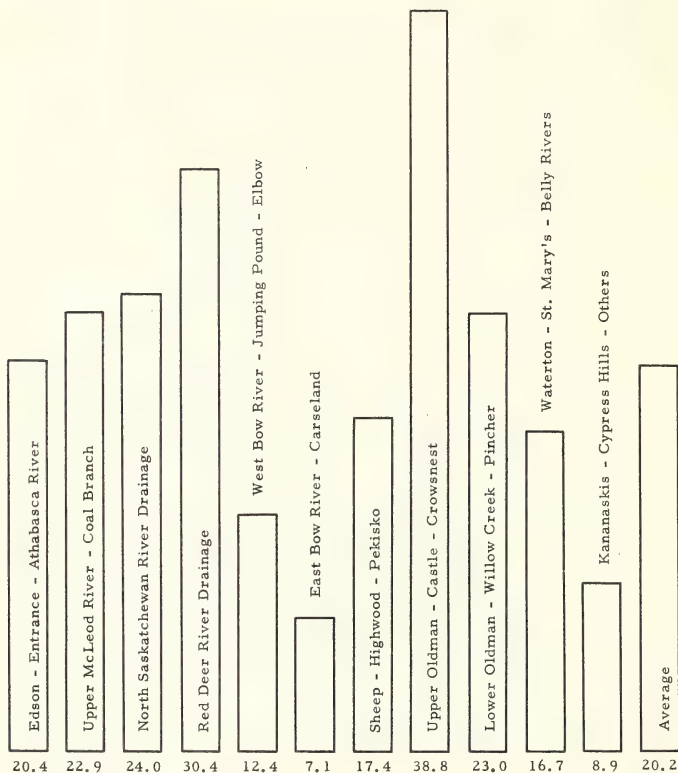
Davey Lake, near Bowden  
Mann Lakes, near Ashmont  
Gadsby Lake, near Tees  
Isle Lake, near Gainford  
Rock Lake, near Entrance

## ESTIMATED TOTAL CATCH IN EACH DISTRICT



Approximately 600,090 trout, grayling and Rocky Mountain whitefish were taken during the 1952 season. This represents an increase of 66% over the 1951 season but is substantially the same as that for the 1950 season. The statistics indicate that the greatest number of fish again came from the Red Deer River district.

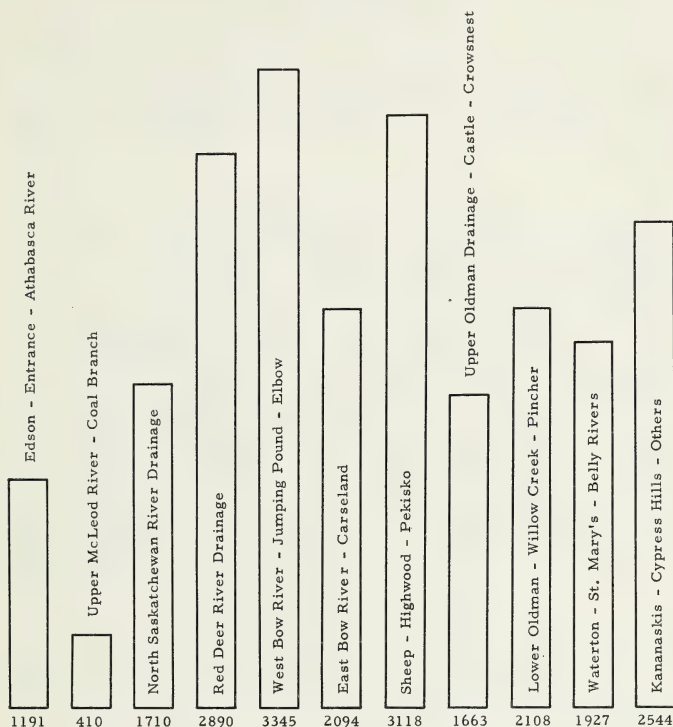
AVERAGE NUMBER OF FISH CAUGHT PER  
 ANGLER IN EACH DISTRICT



The Upper Oldman-Castle-Crowsnest district had the highest catch with an average of 38.8 fish per angler. The East Bow-Carseland district had the lowest with an average of 7.1 fish per angler, a slight decrease from 1951. The average catch per angler for the 1952 season was 20.2 fish.

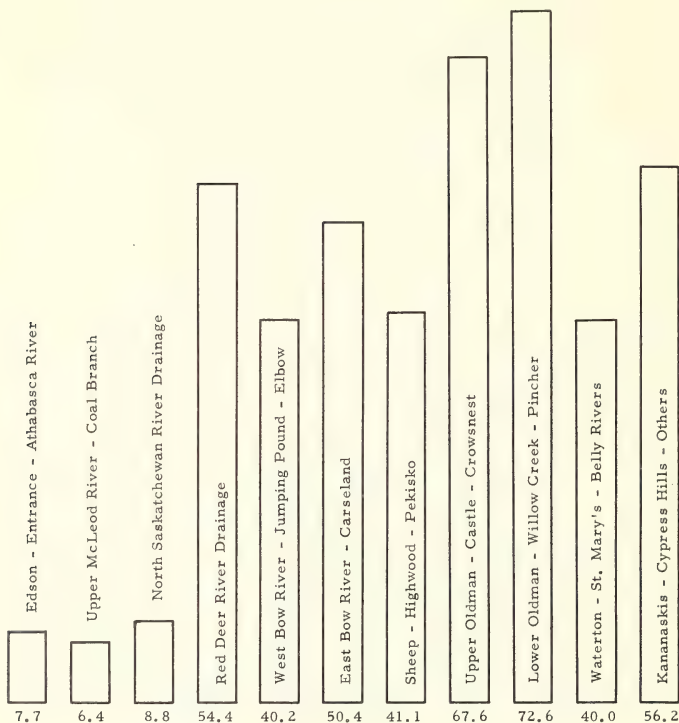


DISTRIBUTION OF THE FISHING TRIPS OF  
23,000 ANGLERS



The West Bow - Jumping Pound - Elbow district was subjected to the heaviest angling pressure with an increase of 35% over the 1951 season. The opening of Spray Lake accounted for most of the 115% increase in the Kananaskis district and the Upper McLeod - Coal Branch district had the lowest angling pressure with a total of 410 visiting anglers.

TOTAL CATCH PER SQUARE MILE  
IN EACH DISTRICT



The statistics indicate that the two Oldman River districts had the greatest catch per square mile, the returns closely resembling those for the 1950 season. The Upper McLeod-Coal Branch district showed the lowest catch return per square mile.

**Technical Division***Report of the Director of the Technical Division*

T. W. DALKIN

It is now just over a year since the Technical Division moved from the south end of the fifth floor of the Natural Resources Building to more commodious quarters on the new top floor of the same building.

The move was made necessary due to the fact that the space on the fifth floor was totally inadequate for the staff and it was not possible to give proper service to the public as most of the maps were located in vaults not easily accessible, and in the basement. The situation was further aggravated by the ever-growing demand from industrial organizations and the general public for copies of our new planimetric maps which when completed will comprise a series of 595 maps on a scale of one mile to the inch compiled from the aerial photography of the province. Then again, the new Aerial Survey Section and Photographic Library were located in a downtown building which meant that the public had to call at the Natural Resources Building for maps and relevant information and then call at the downtown office to obtain information and prints from the Photographic Library. The whole of the Technical Division is now under one roof and can operate as a more efficient unit, and further it is more convenient to the public.

Air conditioning and lighting in the new quarters need to be greatly improved, and in this respect, we have the assurance of the Public Works Department that these features will be remedied.

**NOTIFICATIONS**

The amount of land patented during the last fiscal year is again on the upswing. A total of 434 Notifications were forwarded to the Land Titles Offices and new titles were issued for 58,468.237 acres, more or less, in addition to 107 lots in subdivisions scattered throughout the Province ranging from Canmore in the south to Peace River Landing in the north. This acreage represents an increase of just over 40% over the previous year when 41,602.530 acres and 57 lots were patented.

From the following details of the 434 Notifications it should be pointed out that there is an increase of approximately 76% in the homestead sales and no doubt this is, in some measure, an indication of the general prosperity prevailing in the agricultural areas:

## DEPARTMENT OF LANDS AND FORESTS

## NOTIFICATIONS ISSUED DURING FISCAL YEAR

April 1st, 1952 to March 31st, 1953

(For Surface Rights)

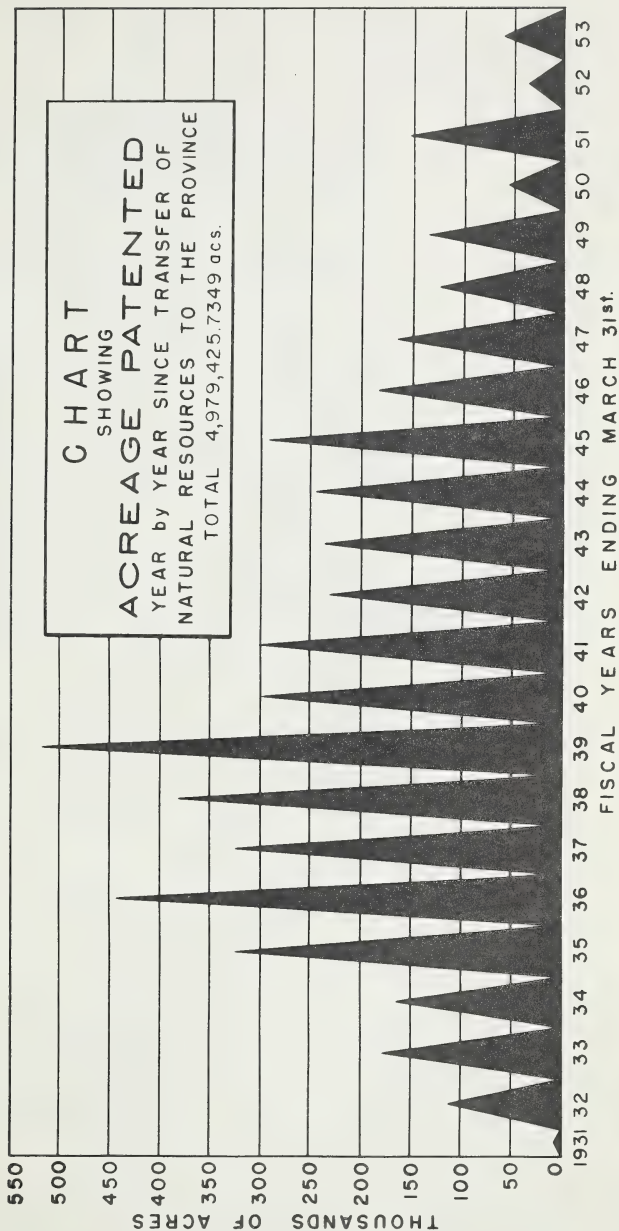
Classification	Notifications	Area
Homesteads	4	631.00
Sales (Including Lots in Subdivisions)	146	5,244.62
Homestead Sales	162	34,884.43
Irrigation Sales	13	2,062.80
Quit Claim	1	
Release of Habendum	1	.92
Supplementary Patents	4	58.15
Exchanges	11	2,879.14
Special Grants	8	28.41
Free Grant	1	406.87
School Land Sales (Including lots in Subdivisions)	83	12,271.897
Total	434	58,468.237

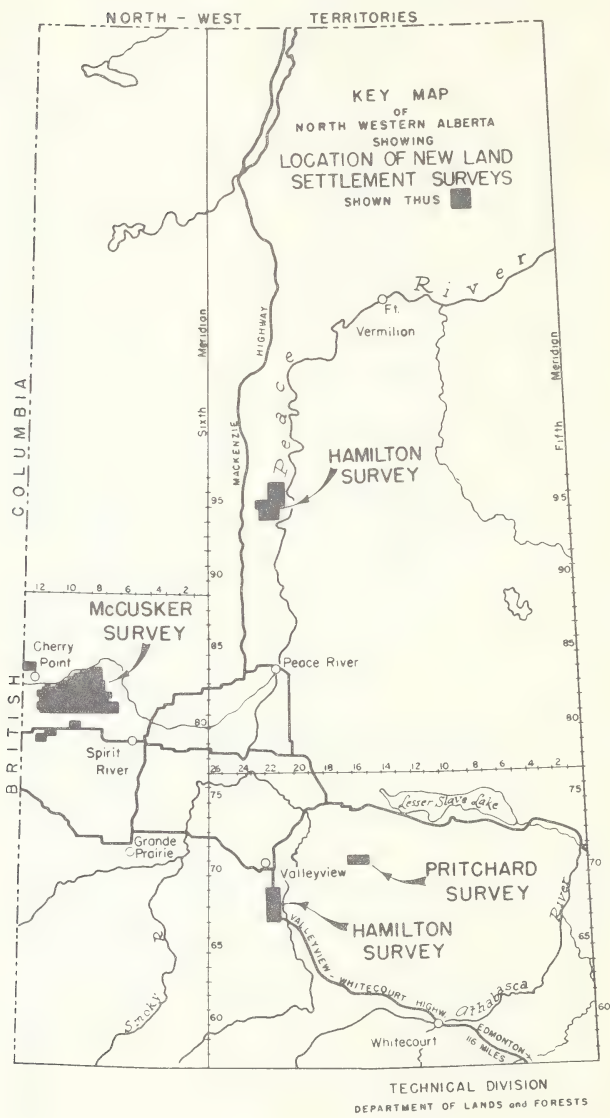
NO. OF SALES IN SUBDIVISIONS WHICH ARE INCLUDED  
IN THE 146 NOTIFICATIONS REFERRED TO ABOVE

Subdivision	Notifications	No. of Lots	No. of Blocks
Canmore, 39 General	33	61	10
Coleman, 6808 C.U.	1	3	1
Waiparous, 3046 E.X.	5	7	2
Peace River Landing Settlement 7361 A.H.	5	10	1
Peace River Landing Settlement 6242 A.X.	1	1	1
Grandview, 1109 B.F.	5	19	2
Seven Persons, 610W	2	6	2
Main Street Centre, 1237 B.D.	1		Block X
			117.80 acres
Total	53	107	20

SUBDIVISIONS INCLUDED IN THE 83 NOTIFICATIONS  
ISSUED UNDER SCHOOL LAND SALES

Subdivision	Notifications	No. of Lots	No. of Blocks
Willingdon, 1329 H.W.	1	1	1
McLennan, 1394 E.U.	1	1	1
Venice, 6036 E.T.	1	1	
Total	3	3	2







Area not stated in these 56

52 sales

3 School Land Sales

1 Quit Claim

56

Total No. of Notifications in  
which area stated \_\_\_\_\_

378

Total No. of Notifications

434

## LAND SURVEYS

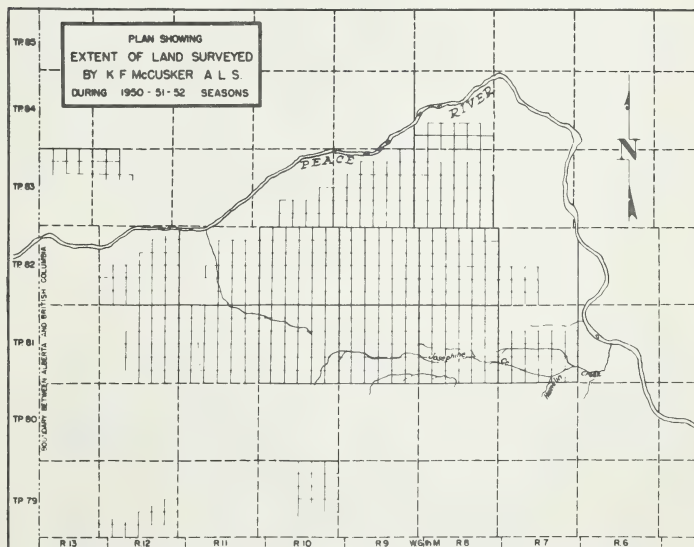
In accordance with the policy of the Department to keep just comfortably ahead of applications to settle upon the land, surveys of suitable areas were again continued this year in the Peace River, Valleyview and Snipe Lake areas.

Whilst good progress was made the unpredictable weather is always a serious element with which to contend and in this regard the heavy rains interfered with the progress of the surveys.

During this season a total of about 324 square miles was made available for settlement representing approximately nine townships.

### Peace River Area

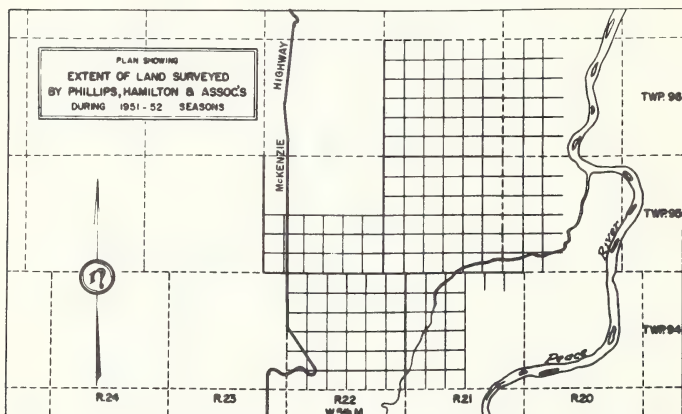
Lands surveyed in this area are located in Township 79, Ranges 10 and 12, part of Township 82, Ranges 7 and 9, part of Township 83, Ranges 8, 9, 10, 12 and 13 and part of Township 84, Range 8, all West of the 6th Meridian. As a result of this survey an area comprising approximately four townships are now available for new homesteads.



### Battle River Area

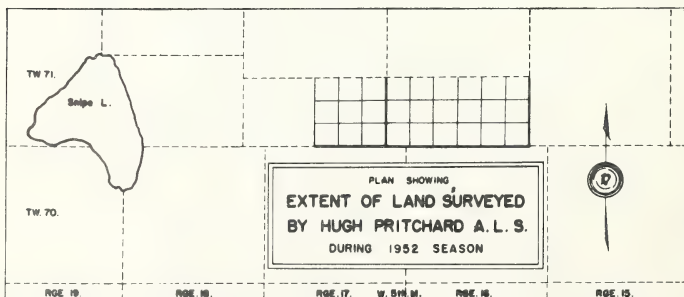
The surveys commenced last year in Township 94, Ranges 21 and 22, Township 95, Ranges 20, 21 and 22, and in Township 96, Ranges 20 and 21, all West of the 5th Meridian, were continued this year. The survey involved the running of township outlines and the correction line and also the traverse of the Meikle and Notikewin Rivers. This traverse work was continued during the winter months and it is questionable whether winter surveys are more economical than summer surveys. One advantage is obvious in that the crossing of the rivers can be made upon the ice.

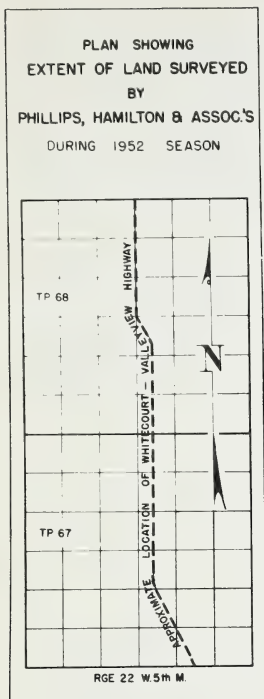
About 2 1/4 townships of additional land were made available for settlement.



### Snipe Lake Area

Owing to the location of this land and the unusually wet season better progress was not possible and about three-quarters of a township was surveyed and made available for settlement.





### Valleyview Area

The Battle River survey party entered the unsurveyed lands in Townships 67 and 68, Range 22, West of the 5th Meridian, late in the fall and approximately two townships were surveyed. On account of winter closing in, however, it was not economical to dig the pits in Township 67. This work will be completed next season.

It is expected that there will be a good demand for lands in this area because, apart from its suitability, the new Whitecourt-Valleyview Highway runs through these townships and provides ready access. Provision is being made to allow a 200 foot right-of-way through Crown land for this highway.

It is expected that additional townships will be surveyed in this area in the near future.

### Restoration Surveys

The Surveyor in charge of the Snipe Lake area was also placed in charge of the restoration of survey monuments which were destroyed by exploratory parties sent out by oil companies. Owing to the continued destruction of monuments it was necessary to cancel the old regulations and issue new regulations under Order - in - Council No. 122/52 and referred to in last year's report. Since the issue of these new regulations, copies of which were sent out to all oil companies or their operators, there is no doubt that the oil companies have issued strict instructions to their employees in order to prevent the destruction of the monuments. These monuments are, of course, of great benefit to the oil companies in the outlying areas and there now seems to be a keen desire to co-operate and respect the regulations.

Objections, however, were raised by the oil industry to Sub-section 6 of Section 3 of the new regulations, whereby the assessment of \$25.00 per monument, plus the full costs of investigation and restoration, and the additional assessment of \$50.00 per monument for failure to report destruction would be charged, irrespective of whether the destruction occurred before or after the new regulations were established.

It was claimed that the imposition of the assessments retroactively under the new regulations was an unjust and unfair liability.

After due consideration the retroactive charges were not imposed and the regulations are now applicable in full to all destruction that has taken place since the passing of the new regulations.

An inspector and investigator was appointed, to thoroughly inspect the areas, and investigate the extent of the destroyed survey monuments to be restored, and the companies responsible for the destruction were assessed the cost as provided for under Order-in-Council No. 122/52.

The restoration work began on the 20th of May and the survey party completed the year's activities on December 20th. During the season 493 survey monuments were restored in various locations in Northern Alberta and accounts amounting to \$25,384.59 were sent out to and paid in full by the following oil companies:

Amerada Petroleum Corporation  
California Standard Oil Company  
Canadian Gulf Oil Company  
Canadian Superior Oil of California  
Pacific Petroleums Limited  
Seaboard Oil Company of Delaware  
Shell Oil Company  
Stanolind Oil Company  
Texaco Exploration Company

It must be pointed out, however, that there are still many areas in the Province where it has not been possible for the investigator to reach as there is a considerable backlog of reports to be investigated. With the increasing co-operation of the oil companies the work is progressing quite favourably.

It should be reported that lumber companies are also responsible, but in a much lesser degree, for the destruction of survey monuments when bulldozing the land to create logging roads into the timbered areas, and these companies are, of course, subject to the same costs of restoration as the oil companies.

## BOUNDARY SURVEYS

### Wood Buffalo Park

The boundary survey of the Wood Buffalo National Park in the north easterly portion of the province has been completed and as soon as plans are available from Ottawa, copies of the plans showing the location of the survey monuments, will be made available to the oil companies.

### Boundary Between Alberta and Northwest Territories

The survey of this boundary from the Slave River west to the north west corner of the province has now been completed and it is anticipated that the remainder of this boundary east from the Slave River comprising about 66 miles will be completed in the

forthcoming season. Provisional plans of the completed portions of this survey, extending from the MacKenzie Highway westerly for a distance of 104.48 miles to the north west corner, and easterly from the MacKenzie Highway for a distance of 90.48 miles, were received from Ottawa. These plans are most useful in that they show the profile of the boundary with elevations, and also the bearings and the distances between the monuments. The oil industry was circularized as to the availability of these plans with the result that many ozalid prints were disposed of.

#### Boundary Between Alberta and British Columbia

The survey work on the Alberta-British Columbia boundary has now been completed and plans of this survey have just been received showing the boundary extending from approximately 3.84 miles south of Latitude 57° 30' to 59° 20'. In order to safeguard the monuments oil companies will be advised and copies of these plans made available.

#### MISCELLANEOUS SURVEYS

In compliance with a request from the Advisory Committee of Kinbrook Island Park, a subdivision of twenty lots was surveyed on the east shore of Lake Newell in Section 19, Township 17, Range 14, West of the 4th Meridian. The subdivision is located about ten miles south of Brooks, and the lots will be leased to local residents for summer homes.

Additional view lots for resort homes were also surveyed in Cypress Hills Provincial Park. As the residents of Medicine Hat and vicinity are keenly interested in creating a golf course within the park's limits, this possibility was also surveyed and a report and design were received from a professional golfer for a nine-hole course.

Beauvais Lake Provincial Park also received attention in that additional lots for summer homes were surveyed.

Suitable Crown lands for resort purposes are somewhat hard to find, however, it was possible to survey a small subdivision of ten lots on the shore of Buck Lake in the North East quarter of Section 10, Township 46, Range 6, West of the 5th Meridian, which is located west of Pigeon Lake.

Gravel disputes were also settled. Usually these disputes occur where gravel beds in rivers are leased to operators who do not own the adjoining lands and on account of the river changing their courses the boundary lines have been washed out. It then becomes necessary to establish upon the ground the dividing lines between the patented areas and the leased areas. These dividing lines are the traverses of the rivers according to the survey upon which the original patents were issued.

#### Surveys Adjoining Land Covered by Water

An amendment was made to the Land Titles Act and assented

to April 10th, 1952, whereby:

"6. (2) No plan of subdivision of land adjoining a lake, river, stream or body of water shall be registered unless the plan has indorsed thereon a certificate signed by or on behalf of the Director of the Technical Division of the Department of Lands and Forests stating that no part of the plan purports to subdivide land vested in Her Majesty in the right of the province."

This amendment to the Land Titles Act was necessary in order to prevent owners subdividing adjoining Crown lands which had been given up through the recession of the waters of lakes, or due to the changes in the courses of rivers. Provision has been made whereby the registered owners subdividing the adjoining lands into lots may purchase the Crown or accrued areas. Upon the lands being purchased, notifications are issued in favour of the registered owners of the adjoining lands and a certificate upon each plan of subdivision is then signed in order to permit of the registration of the plan in the Land Titles Office.

Where the original surveys, according to which the original patents were issued, are correct there is no difficulty in disposing of the Crown areas. Problems, however, are now arising in reaching solutions in some cases, particularly where the original surveys of the water areas, according to which patents were issued, have been found to be incorrect. Since the passing of this amendment many subdivision plans have been presented for approval, most of which are located around lakes at summer resorts.

#### PIPE LINES

Plans of survey of the Trans Mountain pipe line right-of-way to carry oil from Edmonton over prairie lands, rugged mountains, raging torrents and dense forests to the Coast in British Columbia were checked and filed in this division. The construction of this pipe line represents an engineering feat of colossal magnitude and has been aptly recorded on a film entitled "Man Against The Mountain". Oil is already flowing to eastern markets, and in the near future, oil will be flowing westward to markets on the Pacific, which enhances still further the importance of the natural resources with which Alberta is endowed.

In all, sixty-four plans of pipe line surveys affecting Crown lands in Alberta were examined and recorded. These plans were filed by various companies operating in Alberta. Twelve of these plans show that pipe lines were constructed across rivers, the locations of which are as follows:

Canadian Gulf Pipe Line Company	- River Lots 12 and 36-46-21 W. 4th Mer. Battle River
Trans Mountain	- SE 24-51-25-W. 5th Mer. Hardisty Creek



- SE 22 and SW 23-52-25-  
W. 4th Mer.  
North Saskatchewan River
- SE 20-53-16-W. 5th Mer.  
McLeod River
- SE 19 and SW 20-53-7 W. 5th  
Mer. Pembina River
- NE 22-53-16-W. 5th Mer.  
Wolf Creek
  
- Canadian Montana Pipe Line Co. - L.S. 12-22-2-9-W. 4th Mer.  
Milk River
  
- North Western Utilities Ltd. - NE 14-45-8-W. 4th Mer.  
Battle River
- River Lots 5 and 8  
Ft. Saskatchewan Settlement  
North Saskatchewan River
  
- Canadian Western Natural Gas  
Company Limited - SW 3-25-2-W. 5th Mer.  
Bow River

#### WELL, BATTERY SITES AND PUMPING STATIONS

The continued industrialization of the province can be noted from the fact that one hundred and twenty-three plans of survey were examined and recorded in order that Crown lands may be acquired for wellsites, battery sites and pumping stations. Applications for these sites were received under the Right of Entry Arbitration Act.

#### TRANSMISSION LINES

Sixteen plans of survey of rights - of - way for transmission lines were examined and recorded.

#### ROAD SURVEYS

Forty-nine plans of survey of roadways crossing Crown lands were received from the Department of Public Works and Municipal Districts, and the usual reservations were entered in the records reserving the land for road purposes.

#### MAPS

On account of the rapid development of our province, it was important that this department pay particular attention to the map requirements of other industries as well as agriculture and it is with a measure of satisfaction to report that this division now stocks the largest collection of maps in the province. These maps are available to settlers, industrialists and the general public. In our new location, the various types of maps including the Dominion publications and those of the neighboring provinces, can be readily inspected and purchased. Without going into details, it can be reported that a "land office" business was done over the counter and through the mail. The latest maps added to our collection are of course the planimetric maps referred to elsewhere in this report.

These new maps were prepared from the aerial photographs of the province, and by this modern method were completed in a fraction of the time it would take to survey the land upon the ground. The township and settlement maps, however, must be prepared from surveys made upon the ground as all such maps must show the location of the survey monuments, the distances, bearings, rivers, lakes and areas. We still owe a debt of gratitude to the pioneer surveyors who surveyed the land and opened it for settlement. Some of these surveys were made in the early eighties and the maps of these surveys, drawn upon a scale of one inch to forty chains, number over three thousand one hundred.

Great care is exercised in the storage and handling of these maps, particularly the old ones, as all these maps form the basis for the issue of patents and upon which certificates of title are issued in the Land Titles Offices.

During this year five hundred and fifty-one of the old township maps were reproduced and fourteen new township maps were issued covering new surveyed land, mostly in the Peace River area. Copies of all these maps are available to the public.

A re-run of the north-west section of the eight-mile map of the province was obtained, as there was an increased demand for this particular section, no doubt due to the oil activity.

Work is now proceeding on a revised issue of this eight-mile map covering the whole of the province, and it is anticipated that the work will be sufficiently advanced so that a new publication will be off the press by the end of 1953 or early 1954. Our present eight-mile map is dated 1948.

It is also expected that drafting will be completed on a new base map, twenty miles to the inch, and this should be off the press sometime during 1953.

The boundaries of the areas of land opened for settlement keep changing from time to time and it was necessary again this year to issue a revised map of the province showing the lands opened and closed to settlement.

## AERIAL SURVEYS

Progress continues to be made in the photographing and mapping of the province as provided for in Order-in-Council No. 1338/49 dated the second day of November, 1949, and subsequent Orders-in-Council.

### Photography

<u>3333' to 1"</u>	Square Miles
Area already photographed up to March 31st, 1952	249,782.00
Area photographed during present year	5,503.00
Total area of province	255,285.00

With the exception of a few gaps between the flight lines and certain distortions, this photography can be considered completed.

<u>1320' to 1"</u>	Square Miles
Area already photographed up to March 31st, 1952	53,846.66
Area photographed during present year	5,817.34
Total area photographed to March 31st, 1953	59,664.00
Balance of area to be photographed	500.00

These 500 square miles are for the most part gap flights in high mountainous terrain in the south-westerly portion of the province. Arrangements have been made for this photography to be completed within the next two years.

#### Photographic Library

##### Photographs on file

<u>Size</u>	<u>Number</u>
3333' to 1"	75,480
1320' to 1"	164,052
1320' to 1", R.C.A.F.	28,418
Total on file	267,950

There is a considerable increase in the number of photographs on file over last year's, particularly in the 1320' to 1" photography. This photography was represented by 89,447 prints last year, but an additional 34,000 square miles of lands were photographed for Forest Inventory purposes south of latitude 57° 00'.

#### Aerial Photographs Sold During the Fiscal Year

Month	Commercial Rate		Departmental Rate		Departmental Use
	3333	1320	3333	1320	3333
April	1,119	2	105		54
May	1,798	12	195		73
June	1,965	4	93		89
July	2,704	7	500		112
August	1,892	65	366	6	69
September	2,603	14	1,798	19	489
October	1,135	9	67		715
November	620	9	29		1,439
December	334	60	43	5	3,822
January	1,782	896	49	6	2,418
February	1,343	9	22		2,998
March	21,888	2	23	4	63
Totals	39,183	1,089	3,290	40	12,341

From the above sales, it will be noticed that March was the peak month due to demands from the oil companies and exploration parties. A comparison with last year's sales shows that over 15,000 fewer prints of the 3333' photography were sold this year. This may be due to the fact that more planimetric maps became available, whereas there was a heavy demand for the photography before the maps were issued.

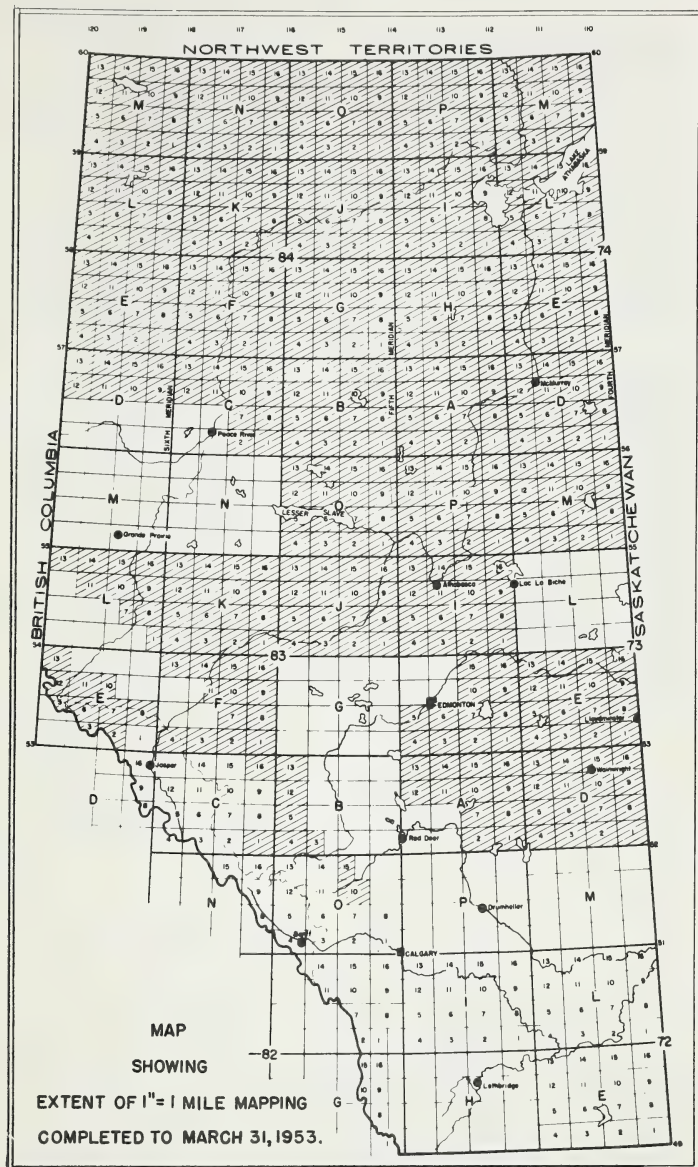
The records show that about two-thirds of the photographs for departmental use were allocated to the Forestry Branch for inventory purposes, nevertheless, it is quite evident that there is a decided increase in the use of the photography by other departments within the government.

### Aerial Mapping

The slow delivery of our planimetric maps was somewhat disappointing. These maps should have been completed and delivered by March 31st, 1952. Whilst assurances were given that delivery would be completed by August, 1952, it must be reported that there are still about one hundred and twenty maps to be received. Prosperous times have certainly created difficulties throughout the government departments so that it is quite understandable that problems must also be encountered in the commercial field. One of these problems can be attributed to the fact that approximately 17,640 square miles of mapping are located in the mountainous terrain which could not be mapped by the slotted templet method and still maintain the degree of accuracy required. In order to continue to use good aerial survey practice to achieve the best possible accuracy, the Photographic Survey Corporation of Toronto decided that the mountainous area could not be mapped by the slotted templet method and, therefore, mapped the area by the multiplex projector mapping equipment which has been modified to project a 1/40,000 model, thus eliminating the reduction and transfer phase from multiplex plot scale to compilation scale. The multiplex method has proven very satisfactory and planimetric maps of the mountainous area of reliable accuracy will now be available to our industries.

	No. of Map Sheets	Square Miles
Area mapped as of March 31st, 1952	310	107,978.200
Area mapped April 1st-March 31st, 1953	164	58,750.100
Total area mapped as of March 31st, 1953	474	166,728.300

Ninety-two 1/40,000 compilation sheets for finalized reproduction were stereoscopically checked and proof read. Also, 148 one inch to the mile finalized autopositive linen and film map sheets were checked and headed for publication. A total of 480 one inch to the mile planimetric maps are now available to the public.



Large scale maps were compiled from aerial photographs of the following Provincial Parks.

- |                     |                    |
|---------------------|--------------------|
| 1. Writing-on-Stone | 6. Big Island      |
| 2. Saskatoon Park   | 7. Beauvais Lake   |
| 3. Park Lake        | 8. Crimson Lake    |
| 4. Rochon Sands     | 9. Gooseberry Lake |
| 5. Lac Cardinal     | 10. Dilberry Lake  |

#### Mosaics

Mosaics were prepared of areas totalling 1,757 square miles of which 1,057 square miles were compiled for the oil industry and 700 square miles for departmental use.

#### Indices

Indices for aerial photography at scales of 3333' to 1" and 1320' to 1" were compiled on 1 mile to 1" maps for an area of 60,000 square miles. These 1 mile to 1" maps are reduced by photostat to the scale of 4 miles to 1" and are available to our clients free of charge with all photographic orders. This facilitates the selection of photographs by our industries and the general public purchasing photographs.

A Williamson Ross 7 projector multiplex mapping unit was purchased by the department thus allowing the Technical Division to expand its service to other departments within the government. The multiplex is an optic mapping unit which permits more accurate contouring of large areas from aerial photography. The south half of map sheet 83-H-5, containing 179 square miles was contoured as a training program and good results were obtained.

#### Aerial Photographic Survey Act

During the year, seven flying licenses were issued under this act, of which five were for commercial projects and two for governmental programs.

- |   |  |
|---|--|
| License No. 17 - May 22nd, 1952 -       | Photographic Survey Corporation - commercial |
| License No. 18 - August 5th, 1952 -     | Canadian Engineering Surveys - government    |
| License No. 19 - August 12th, 1952 -    | Photographic Survey Corporation - commercial |
| License No. 20 - August 22nd, 1952 -    | Canadian Engineering Surveys - commercial    |
| License No. 21 - August 30th, 1952      | Aero Surveys Limited - government            |
| License No. 22 - September 24th, 1952 - | Photographic Survey Corporation - commercial |
| License No. 23 - October 14th, 1952 -   | Aero Surveys Limited - commercial            |



Photostat and Ozalid Machines

These machines turned out a large volume of work. The photostat machine takes care of all the requirements of the government, the Land Titles Office in particular being a steady client. Many special maps were prepared and photostated for the Civil Defence Office and thousands of copies of our new planimetric maps were run through the ozalid machine.

Looking back over the year it can be regarded as a busy one within the department as the work of this division is closely interwoven with the Lands Division and Forestry Division in the disposal of the natural resources. It can also be regarded as a busy one in our relations with officials of industries, surveyors, engineers and the general public. Apart from the problems that arise in connection with certificates of title, plans of survey, etc., the large volume of maps, plans and aerial photographs is also indicative that it has been a busy and interesting year. Appreciation is again herein expressed to the staff for rendering this service within the department and to other government departments and the general public.

**Accounting Division**REPORT OF THE ADMINISTRATIVE ACCOUNTANT,  
A. McCALLUM

The following summarizes the result of operations for the year under review.

Receipts from all sources (Net)	\$7,286,082.12
Total disbursements	\$3,013,348.70
Excess of receipts over disbursements	\$4,272,733.42

Net receipts on income account amounted to \$5,251,502.65, an increase of \$1,188,358.13 over the previous year.

Active accounts receivable were 18,252 as at March 31, 1953. New accounts opened were 2,296. Accounts closed or paid in full 590. For the year under review cash entries were 53,314 for which 49,872 receipts and permits issued.

Under the Crown Cultivation Leases Act as amended and the Grazing Lease Taxation Act as amended, \$481,234.08 was re-funded to the taxing authority.

Disbursements for the year on income account amounted to \$2,518,514.65, while capital expenditure was \$494,834.05.

Cost of land settlement and boundary surveys was \$171,535.41, including wages.

Firefighting costs for the year were \$66,120.05.

In connection with the destruction of pests an amount of \$84,390.94 was disbursed.

Under the terms of agreements entered into by the Province and Canada, capital expenditure in connection with East Slope Reserves amounted to \$921,569.46, for which the Province received full reimbursement. Also under the Dominion - Provincial Forestry agreement in respect of forest inventories the Province was reimbursed in the amount of \$166,000.00.

## INDEX OF STATEMENTS

- A. Statement of Receipts from all Sources.
- B. Statement of Receipts - Income Account.
- C. Statement of Receipts - Capital Account.
- D. Statement of Receipts - School Lands.
- E. Statement of Expenditures for the year ending March 31, 1953.
- F. Statement of Net Receipts by Branches.
- G. Statement of Disbursements by Branches.
- H. Alberta School Land Trust Fund.
- I. Alberta School Land Sales - Revenue Account.

## Statement A

## STATEMENT OF RECEIPTS FROM ALL SOURCES

From April 1, 1952 to March 31, 1953

	Gross Receipts	Refunds	Net Receipts
	\$	\$	\$
Income Account	6,762,744.47	1,511,241.82	5,251,502.65
Capital Account	269,133.91	4,365.47	264,768.44
Reimbursement of Previous Years Expenditure	3,192.91	9.00	3,183.91
School Land Trust Fund	366,389.14	388.16	366,000.98
Timber Deposits Trust	1,441,014.66	417,169.90	1,023,844.76
Homesteader's Compensation Trust	2,789.21	1,553.90	1,235.31
East Slope Road Tolls Trust	1,290.64	—	1,290.64
Parks Board Trust	18,179.75	325.20	17,854.55
Unapplied Receipts carried Forward:			
Suspense	405,923.95	231,705.80	174,218.15
Improvements	11,145.31	3,881.31	7,264.00
Land Patent Cultivation Crop Share	12,834.76	—	12,834.76
Land Patent Homestead Lease Crop Share	104,422.67	—	104,422.67
School Lands Cultivation Crop Share	57,661.30	—	57,661.30
Total	\$9,456,722.68	\$2,170,064.56	\$7,286,082.12

## STATEMENT OF RECEIPTS - INCOME ACCOUNT

From April 1, 1952 to March 31, 1953

	Gross Receipts	Refunds	Net Receipts
<u>Fisheries Account</u>			
Fishing Licenses	\$ 80,794.85	\$ 294.60	\$ 80,500.25
Fisheries Miscellaneous	138.74	—	138.74
Fisheries Royalty	17,544.40	—	17,544.40
Total	98,477.99	294.60	98,183.39
<u>Game Account</u>			
Game Licenses	284,348.84	1,491.12	282,857.72
Fur Tax	91,245.67	3,879.03	87,366.64
Game Branch Miscellaneous	2,372.36	646.79	1,725.57
Total	377,966.87	6,016.94	371,949.93
<u>Lands and Grazing</u>			
Grazing Leases, Permits, Etc.	505,727.44	101,812.31	403,915.13
Hay Permits, Fees and Dues	5,911.35	1,343.00	4,568.35
Homestead Leases	209,862.42	132,576.75	77,285.67
Public Land Sales Interest	6,926.73	11.25	6,915.48
Cultivation Leases, Permits, Etc.	71,963.60	35,034.33	36,929.27
Miscellaneous Leases	96,122.86	2,090.36	94,032.50
Land Patent Miscellaneous	43,916.46	3,845.04	40,071.42
Total	940,430.86	276,713.04	663,717.82
<u>Timber</u>			
Timber Fees, Rental, Dues, Etc.	3,858,972.74	865,500.22	2,993,472.52
<u>School Lands</u>			
School Land Sales Interest	61,526.06	23.81	61,502.25
School Land Leases, Berths, Permits	703,132.22	235,549.25	467,582.97
Total	764,658.28	235,557.06	529,085.22
<u>Unearned Increment Tax</u>			
East Slope Surface Rights Revenue	592,130.30	124,190.77	467,939.53
<u>Miscellaneous</u>			
Administration Sundry	26,449.87	2,754.79	23,695.08
Maps and Plans	36,705.86	—	28,219.97
Restoration of Survey Monuments	—	—	8,485.89
Photographic Survey	33,426.27	9.10	33,417.17
Reimbursement from Dominion	—	—	—
Government Re: Forest Inventory	33,025.08	—	33,025.08
Total	129,607.08	2,763.89	125,843.19
TOTAL INCOME ACCOUNT (Carried to Statement A)	\$ 6,762,744.47	\$ 1,511,241.82	\$ 5,251,502.65

## Statement C

## STATEMENT OF RECEIPTS - CAPITAL ACCOUNT

From April 1, 1952 to March 31, 1953

	Gross Receipts	Refunds	Net Receipts
Land Sales Principal _____	\$ 93,675.98	\$ 4,044.69	\$ 89,631.29
Clearing and Breaking Project Seed Grain Principal _____	187.50	—	187.50
Clearing and Breaking Project Crop Share _____	42,295.51	320.78	41,974.73
Reimbursement from Dominion Government re: Forest Inventory	132,974.92	—	132,974.92
Total	\$ 269,133.91	\$ 4,365.47	\$ 264,768.44

## Statement D

## STATEMENT OF RECEIPTS - SCHOOL LANDS

From April 1, 1952 to March 31, 1953

	Gross Receipts	Refunds	Net Revenue
<u>INCOME ACCOUNT</u>			
School Land Sales Interest _____	\$ 61,526.06	\$ 23.81	\$ 61,502.25
School Land Grazing Lease Rentals, Etc. _____	66,072.26	42,813.11	23,259.15
School Land Hay Permits, Fees and Dues _____	1,085.05	138.50	946.55
School Land Cultivation Rentals, Fees, Etc. _____	493,783.36	189,574.25	304,209.11
School Land Timber Rentals, Fees, Dues, Etc. _____	119,167.39	1,966.63	117,200.76
School Land Miscellaneous Leases	7,306.56	31.56	7,275.00
School Land Miscellaneous Revenue	15,717.60	1,025.20	14,692.40
<u>TRUST ACCOUNT</u>			
School Lands Sales Principal	366,389.14	388.16	366,000.98
Total	\$ 1,131,047.42	\$ 235,961.22	\$ 895,086.20









## STATEMENT OF NET RECEIPTS BY BRANCHES

From April 1, 1949 to March 31, 1953

	Fiscal Year Ending			
	March 31/50	March 31/51	March 31/52	March 31/53
	\$	\$	\$	\$
INCOME ACCOUNT				
Fisheries Branch _____	67,728.80	78,015.34	91,544.27	98,183.39
Game Branch _____	342,370.78	311,207.23	324,890.60	371,949.93
Lands and Grazing Branch _____	446,514.66	480,481.42	714,989.88	663,717.82
Timber Branch _____	1,557,190.36	2,029,901.62	2,227,043.96	2,993,472.52
Unearned Increment				
Tax _____	14,483.97	1,293.28	1,722.65	311.05
School Lands _____	335,881.56	263,395.38	379,955.03	529,085.22
East Slope Surface Rights _____	171,354.77	185,138.18	224,688.37	467,939.53
Clearing and Breaking Project - seed grain interest _____	112.73	—	—	—
Miscellaneous _____	73,526.04	51,932.72	98,309.76	126,843.19
CAPITAL ACCOUNT				
Land Sales Principal _____	84,527.02	110,547.72	72,095.72	89,631.29
Clearing and Breaking Project - seed grain principal _____	3,883.33	127.00	32.86	187.50
Clearing and Breaking Project - crop share _____	28,657.62	18,635.54	23,492.64	41,974.73
Reimbursement from Dominion Government on Forest Inventory _____	—	—	—	132,974.92
Reimbursement from Dominion Government on Eastern Rockies _____	—	—	133.37	—
Transferred to other departments _____	6,232.15	1,212.05	8,498.73	3,183.91
School Land Trust Fund _____	255,010.09	318,620.30	387,306.46	366,000.98
Timber Deposits Trust				1,023,844.76
Homesteader's Compensation Trust _____	470.25	242.05	385.05	1,235.31
East Slope Road Tolls Trust _____	—	—	138.46	1,290.64
Parks Board Trust _____	—	—	10,594.29	17,854.55
Unapplied Receipts Carried Forward _____	167,130.88	359,581.06	1,248,356.42	356,400.88
Total	\$ 3,555,075.01	4,210,330.89	5,814,178.52	7,286,082.12

STATEMENT OF DISBURSEMENTS BY BRANCHES  
From April 1, 1949 to March 31, 1953

	Fiscal Year Ending			
	March 31/50	March 31/51	March 31/52	March 31/53
	\$	\$	\$	\$
<u>INCOME</u>				
1901 Minister's Office _____	5,945.89	6,255.08	10,476.46	9,214.65
1902 Deputy Minister's Office _____	33,179.86	35,021.83	40,774.62	26,995.43
1903 Accounts Division _____	75,751.63	82,447.23	91,180.82	96,323.84
1904 Advisory Board _____	584.86	899.59	949.27	688.65
1905 Destruction of Pests _____	30,197.23	39,321.05	19,147.85	84,390.94
1906 Eastern Rockies Conservation _____	206,697.18	185,004.81	224,688.37	240,715.73
1907 Fisheries Division _____	139,267.68	129,899.37	139,146.59	156,892.88
1909 Forest Protection & Timber Operation _____	420,290.91	483,882.88	561,585.56	642,686.46
1910 Forest Survey Division _____	21,125.10	29,784.80	45,437.14	55,511.74
1911 Forest & Prairie Fires Suppression Act _____	266,261.66	260,052.39	28,071.74	66,120.05
1912 Game Division _____	85,794.49	105,316.46	117,909.72	176,382.27
1913 Eastern Rockies Forest Conservation Board _____	7,011.16	8,242.00	8,535.75	63,349.37
1914 Lands Division _____	188,067.18	198,220.23	222,834.38	244,509.90
1915 Parks Division _____	18,270.12	14,385.11	—	—
1916 Radio Communication _____	91,261.79	90,420.89	110,115.50	84,414.01
1917 Surveys Division _____	55,103.88	183,122.10	291,469.95	340,549.73
1918 Registration Division _____	49,381.80	60,207.25	72,943.02	63,995.68
1919 Postage _____	9,237.86	11,092.92	12,708.15	12,501.85
1920 Printing Stationery & Office Supplies _____	—	—	31,402.37	32,227.84
1921 Forestry Training School _____	—	—	7,612.81	10,717.05
1922 Provincial Parks _____	—	—	47,958.04	102,028.62
SW 38/49-50 Cost of Drilling Wells - Slave Lake _____	5,676.95	—	—	—
SW 33/50-51 Medical Examinations of Forestry Officers _____	—	115.40	—	—
SW 43-63/51-52				
SW 2 & 25/52-53 Cost of Survey of Depart- ment by Stevenson Kellogg Ltd. _____	—	—	14,000.00	8,297.96
Total Income Account _____	1,709,107.23	1,923,691.39	2,098,948.11	2,518,514.65
<u>CAPITAL</u>				
1980 Land Settlement Clearing & Breaking _____	296,027.79	368,747.24	164,733.26	188,513.59
1981 Eastern Rockies Forest Conservation _____	—	133.37	—	—
1982 Aerial Photography & Forest Inventory _____	—	386,287.10	405,703.29	306,320.46
SW 26/49-50 Photographic Survey-Natural Resources of the Province _____	81,075.24	—	—	—
SW 87/51-52 Purchase of Land for Vermilion River Prov. Park _____	—	—	27,511.19	—
Total Capital Account _____	\$ 377,103.03	\$ 755,167.71	\$ 597,947.74	\$ 494,834.05

# ACCOUNTS ADMINISTRATION

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Statement H

## ALBERTA SCHOOL LAND TRUST FUND

Balance Sheet - March 31st, 1953

As at March 31st, 1953 the fund amounted to \$14,885,879.19 made up as follows:

Cash _____	\$ 403,747.58
Accounts Receivable _____	167,041.28
(a) Issued in settlement of the sum standing to the credit of the fund when the natural resources were transferred to the Province on October, 1930 _____	\$ 9,564,569.20
(b) Purchased by the Province since October 1, 1930 from payments of principal on school land sales, book value _____	<u>2,959,732.23</u>
	\$ 12,524,301.43

Unpaid principal on school land sales

(a) Not due _____	1,757,956.60
Due or in arrears _____	<u>32,832.30</u>
	\$ 1,790,788.90
	<u>\$ 14,885,879.19</u>

Statement I

## ALBERTA SCHOOL LAND SALES - REVENUE ACCOUNT

From April 1, 1952 to March 31, 1953

Arrears Interest as at March 31, 1952 _____	\$ 13,144.00
Interest Charges _____	65,940.73
Interest Revenue _____	\$ 61,588.72
Interest Written Off (Cancelled Sales) _____	1,708.58
Arrears Interest, as of March 31, 1953 _____	15,787.43
	<u>\$ 79,084.73</u>
	<u>\$ 79,084.73</u>

**Registration Division**

## REPORT OF THE REGISTRAR.

C. B. KENWAY

Incoming mail, which is a good criterion of work flowing through the department, was down about 12% from the last year and about 14% from the previous year. Similarly, there was a marked falling off in the principal entries in the township registers. Figures showing these differences may be found at the end of this section.

Despite the decrease in routine work, the Division kept extremely busy in making much-needed changes. Changing the timber files from the numerical system to one of berth and permit numbers, mentioned in the last report, has proven very satisfactory and provided the desired results. Consequently, the grazing files were changed to agree with the lease numbers. By the retention of the lease number on renewals, much unnecessary recording has been eliminated during the past year on grazing leases. The grazing change-over was done by the staff formerly engaged to clean up the backlog of microfilm work.

New townsite files were set up according to land description, thus tying the file to the plan, block and lot number. These had to be changed from the old numerical system, but it now provides us with a system of direct filing and eliminates all cross-referencing throughout the department.

All the Provincial Park files, sent over by Public Works, were scrutinized carefully, broken down, and set up anew according to park and land description, and where certain resorts had been subdivided, then by block and lot number. Considerable work was entailed in this project alone, and this had to be done before the Board could properly carry out its function.

Indian Reserve files were changed also from the numerical system to one of reserve numbers.

These three groups of files were all provided with folders to keep correspondence from being torn or lost from files.

In co-operation with the Accounts Branch, the various cash blotters were amalgamated into one, and this redesigned to give duplicate copies, thus reducing holdups and both the cash and mail cages wanting the same book at the same time.

Again in co-operation with the Accounts and Forestry Branches, the elimination of "Nil" debit slips on "Nil" timber returns, has dispensed with much needless typing, checking, attaching and filing, etc.



On the assumption of the grazing register from the Lands Branch, the plans were removed from the register and placed in the township registers. This eliminated entering into two different registers.

Plans are now being inserted in the township registers for all townships in order to give a complete picture of the township at a glance.

A small staff worked on the Kardex, inserting the full land description against each land file shown on each card in the Kardex. Although this job looked monumental at the beginning, and a possible hindrance to the setting up of a system of land filing, it was completed in about 3 1/2 months.

From the above resume it can be readily seen that the extra time provided by a reduction in routine work, has been used to good advantage.

The microfilming of closed files was completed around the beginning of the year, and all but one of the staff on this work transferred to changing grazing files. Consequently, only 61 films were exposed during the past year. Filming of these files has resulted in a saving of space valued at \$10,000.00 annually. The next phase will be to photograph old correspondence on live files.

No matter how efficiently changes are made, a certain amount of confusion arises. It is also a trait of human nature to resist change, even though the change is considerably better. My admiration and appreciation is extended to the staff for the manner in which each and every one met the situations as they arose, for their good judgment, and for their cheerfulness in the fulfilment of their duties. It should be a pleasure to the staff to know that the appreciation is extended by others in the various branches.

#### SUMMARY OF INCOMING AND OUTGOING MAIL BY NUMBER OF PIECES FOR THE PAST FOUR YEARS

YEAR	INCOMING*	OUTGOING+	TOTAL
1949 - 50	98,545	173,546	272,091
1950 - 51	121,873	220,041	341,914
1951 - 52	119,154	230,376	349,530
1952 - 53	104,965	174,388	279,353

\* Actual mail cage count

+ Total count as reported by branches

A COMPARISON OF RECORD ENTRIES  
FOR THE PAST TWO YEARS

Item	1952-53	1951-52	Difference
Assignments registered	294	313	- 19
Notifications for patent	434	344	90
Timber berth & special timber permit applications	744	672	72
Forestry reservations	602	589	13
Accrued area leases entered	75	108	- 33
Accrued area leases cancelled	58	67	- 9
Homestead leases (Civilian) entered	869	1,037	-168
Homestead leases (Civilian) cancelled	413	518	-105
Homestead leases (Veteran) entered	130	194	- 64
Homestead leases (Veteran) cancelled	105	100	5
Licenses of occupation entered	59	57	2
Licenses of occupation cancelled	18	17	1
Miscellaneous leases entered	45	52	- 7
Miscellaneous leases cancelled	19	19	0
Cultivation leases entered	39	89	- 50
Cultivation leases cancelled	43	73	- 30
Public land sales entered	230	207	23
Public land sales cancelled	8	5	3
Road allowance leases entered	207	455	-248
Road allowance leases cancelled	29	27	2
Grazing leases entered	52	98	- 46
Grazing leases cancelled	68	58	10
<b>TOTAL</b>	<b>4,541</b>	<b>5,099</b>	<b>-558</b>

A COMPARISON OF NEW FILES OPENED FOR THE PAST  
TWO YEARS SHOWING THE TOTALS TO DATE

KIND OF FILE	1952-53	1951-52	TOTAL
Land files	2,964	3,760	127,734*
Land personal	794	1,565	10,498
Timber applications	1,762	) 1,636	) 16,481
Timber lands (C.S.M.)	135	)	)
Timber personal	2,408	2,191	15,380
Grazing	185	104	10,984
School land	269	566	15,823
Right of entry	248	220	948
Cabins	53	92	758
Road allowance	198	227	1,627
Provincial Parks	720	---	720
Townsite	1,356	---	1,356
Indian Reserves	76	---	76
Timber Sales	---	---	518
<b>TOTALS</b>	<b>11,168</b>	<b>10,361</b>	<b>202,903</b>

\* Adjusted total after townsite and Indian reserves deducted.

## **Provincial Parks Administration**

### REPORT OF THE PROVINCIAL PARKS BOARD

V. A. WOOD, *Chairman*

T. W. DALKIN, *Board Member*

The Provincial Parks Board was reorganized in 1952, and by Order in Council 749/52 a board was appointed consisting of V. A. Wood, Chairman and T. W. Dalkin, Member.

By Order in Council 1814/52 regulations were established for the administration of provincial parks. These regulations cover, generally, the use of park lands and the operation of boats, preservation of property, prevention of nuisances and disposal of garbage, the removal of sand, stone and gravel, cutting of hay and timber, water utilization and miscellaneous subjects within the parks.

There were 89 park leases and 115 permits, mainly for summer residences, in effect on the 31st of March, 1953. During the period from the 1st of April, 1952, to the 31st of March, 1953, 2 leases and 40 permits were cancelled.

During the fiscal year a considerable portion of the park appropriation was utilized for capital expenditures. The major improvements consisted of five picnic shelters, two each at Cypress Hills and Garner Lake and one at Taber; two new piers, one at Cypress Hills and one at Saskatoon Island; and four miles of new roadways, at Cypress Hills (2 1/2 miles), Garner Lake (1/2 mile), Crimson Lake (1/2 mile), and Beauvais Lake (1/2 mile). In addition, graveling and road maintenance, were carried out on many miles of roadways within provincial parks. Buildings and other structures were maintained, either by caretakers or voluntary labor from residents of the area. Several steel stoves of improved construction were purchased and distributed to various parks. Playground equipment, which proved to be a major attraction to the children, was supplied to twelve parks.

Because contracts for certain maintenance work could not be obtained locally, a mobile maintenance unit was operated on an experimental basis. The equipment for this unit consisted of one 3-ton truck with trailer, one Fordson tractor with attachments, a paint spray unit, power saw and miscellaneous tools. The unit performed plowing and tilling of sand beaches, painting of several buildings, gravel hauling, road maintenance, brush and grass cutting, etc. Due to the lack of adequate personnel to operate same, the results were not as satisfactory as anticipated. It was found to be more efficient to locate the equipment of the mobile unit at several of the larger provincial parks.

A new townsite subdivision has been surveyed at Kinbrook Island Provincial Park and an extension has been added to the

existing subdivision at Beauvais Lake. At the Vermilion park negotiations were continued for the acquisition of lands required for park purposes.

During the past year the local advisory committees have given considerable time and effort to develop their respective parks and are to be commended for their splendid service. Although no attempt has been made to place a monetary value on the labor and materials which have been donated by residents in the areas served by these parks, undoubtedly it has been considerable. Even with the help given by the local committees and other residents, it has been necessary to hire caretakers at ten of the provincial parks to ensure the parks being maintained in a satisfactory manner. Such a step was necessary because of the increased use of the provincial parks by residents of the province.

Several requests have been received for the establishment of new parks in the province. Investigations have been made by the Superintendent of provincial parks and his recommendations have been considered by the board. Several areas are still under consideration as possible sites.

The following is a summary of the revenue and expenditures for the fiscal year:

1. Amount appropriated for provincial park purposes	\$125,000.00
2. Revenue received from each park:	
Aspen Beach	Nil
Beauvais Lake	\$ 309.00
Crimson Lake	425.00
Cypress Hills	16,813.92
Dilberry Lake	Nil
Garner Lake	Nil
Gooseberry Lake	40.00
Little Fish	Nil
Park Lake	43.00
Red Lodge	Nil
Saskatoon Island	78.63
Saskatoon Mountain	Nil
Taber	30.00
Wapiti River	Nil
Writing-on-Stone	25.00
Total	\$ 18,414.55

## 3. Expenditures for each park:

Beauvais Lake	\$ 1,225.41
Cypress Hills	41,317.29
Dilberry Lake	1,220.34
Crimson Lake	3,444.35
Gaetz Lake Sanctuary	36.21
Garner Lake	4,863.13
Gooseberry Lake	800.64
Kinbrook Island	1,728.64
Ma-Me-O-Beach	451.44
Park Lake	2,590.58
Red Lodge	2,545.37
Riverside	1,551.96
Rochon Sands	2,157.55
Saskatoon Island	3,109.96
Sylvan Lake	162.55
Taber	3,148.94
Vermilion River	7,118.18
Writing-on-Stone	986.78

Total	\$ 78,459.32
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## 4. General expenses such as office, salaries, travelling, etc.

Salaries	\$ 9,713.81
Miscellaneous and General	6,335.70
Mobile Maintenance Unit	7,519.79

Total	\$ 23,569.30
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## PERSONNEL

Of Department of Lands and Forests

by Branches

## 1. MINISTER'S OFFICE

- 1 Minister
  - 1 Secretary
  - 1 Messenger Clerk
- 
- 3

## 2. DEPUTY MINISTER'S OFFICE

- 1 Deputy Minister
  - 1 Departmental Solicitor
  - 1 Special Investigator
  - 1 Clerk (Stationery and Equipment)
  - 1 Clerk (Personnel Officer)
  - 1 Secretary
  - 4 Stenographers
  - 1 Clerk
  - 1 Clerk-Typist
- 
- 12

## 3. PUBLIC LANDS

- 1 Director of Lands
  - 1 Asst. Director of Lands
  - 1 Grazing Appraiser
  - 1 Asst. Grazing Appraiser
  - 1 Examiner of Soils IV
  - 1 Examiner of Soils III
  - 9 Examiners of Soils II
  - 3 Examiners of Soils I
  - 1 Inspector of Collections
  - 5 Supervisors
  - 12 Correspondence Clerks
  - 2 Counter Clerks
  - 1 Clerk
  - 22 Stenographers
  - 4 Clerk-Typists
  - 1 Sub-Agent, Bonnyville
  - 1 Caretaker, Vauxhall Grazing Reserve
  - 1 Clerk, Calgary
  - 1 Sub-Agent, Peace River
  - 1 Clerk, Peace River
- 
- 70

## 4. FORESTRY

- 1 Director of Forestry
  - 1 Asst. Director of Forestry
  - 1 Timber Administrative Officer
  - 1 Chief Clerk
  - 1 Clerk - Accountant
  - 4 Correspondence Clerks
  - 10 Clerks
  - 1 Clerk-Typist
  - 1 Stenographer to Director
  - 7 Stenographers
- 
- 28

4a. Northern Alberta Forest District

- 1 Chief Timber Inspector
  - 2 Timber Auditors
  - 9 Forest Officers (V) (Chief Ranger & Timber Inspector)
  - 3 Forest Officers (IV) (Timber Inspector)
  - 9 Forest Officers (III) (Asst. Chief Ranger & Timber Inspector)
  - 42 Forest Officer (II) (Forest Ranger)
  - 13 Forest Officer (I) (Asst. Forest Ranger)
  - 14 Lookout Men - classified and full time
  - 9 Lookout Men - seasonal
  - 2 Stenographers
- 
- 104

4b. Brazeau Athabasca Forest

- 1 Forest Superintendent
  - 1 Asst. Forest Superintendent
  - 1 Forest Officer (III) (Head-quarters Ranger)
  - 12 Forest Officers (II) (Forest Rangers)
  - 7 Forest Officer (I) (Asst. Forest Rangers)
  - 1 Forest Clerk
  - 1 Stenographer
- 
- 24

4c. Forest Inventory Branch

- 1 Forest Survey Engineer
  - 6 Forest Engineers
  - 1 Compiler
  - 1 Asst. Compiler
  - 1 Clerk-Typist
- 
- 10

4d. Radio Communications

- 1 Radio Superintendent
  - 1 Asst. Radio Superintendent
  - 2 Radio Operators (III)
  - 3 Radio Operators (II)
  - 6 Radio Operators (I)
  - 3 Radio Technicians
  - 1 Stenographer
- 
- 17



5. EASTERN ROCKIES  
FOREST RESERVES  
ADMINISTRATIVE  
OFFICE, CALGARY

- 1 Administrative and Liaison Officer
- 1 Maintenance Foreman (Construction)
- 1 Maintenance Foreman (Mechanical)
- 1 Office Supervisor
- 1 Stenographer

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5

5a. Crowsnest Forest Reserve

- 1 Forest Superintendent
- 1 Asst. Forest Superintendent
- 1 Forest Officer (III) (Headquarters Ranger)
- 5 Forest Officers (II) (Forest Rangers)
- 5 Forest Officers (I) (Asst. Forest Rangers)
- 1 Lookout Man - Classified - Seasonal
- 2 Lookout Men - Unclassified - Seasonal
- 1 Forest Clerk
- 1 Stenographer

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5b. Bow River Forest Reserve

- 1 Forest Superintendent
- 1 Asst. Forest Superintendent
- 1 Forest Officer (III) (Headquarters Ranger)
- 5 Forest Officers (II) (Forest Rangers)
- 10 Forest Officers (I) (Asst. Forest Rangers)
- 3 Lookout Men - Classified - Seasonal
- 1 Lookout Man - Classified - Full time
- 1 Forest Clerk
- 1 Stenographer

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24

5c. Clearwater Forest Reserve

- 1 Forest Superintendent
- 1 Asst. Forest Superintendent
- 1 Forest Officer (III) (Headquarters Ranger)
- 5 Forest Officers (II) (Forest Rangers)
- 9 Forest Officers (I) (Asst. Forest Rangers)
- 1 Lookout Man - Classified - Seasonal
- 2 Lookout Men - Unclassified - Seasonal
- 1 Forest Clerk
- 1 Stenographer

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6. FISHERIES

- 1 Superintendent of Fisheries
- 1 Fishery Officer (IV) - Calgary
- 1 Fishery Officer (III) - Calgary
- 9 Fishery Officers (II)
- 8 Fishery Officers (I)
- 1 Superintendent Fish Hatchery - Calgary
- 1 Asst. Superintendent Fish Hatchery - Calgary
- 1 Hatchery Assistant - Calgary
- 4 Pond Attendants
- 1 Chief Clerk
- 1 Stenographer

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7. GAME

- 1 Superintendent of Game
- 1 Game Officer (III)
- 1 Game Officer (II) - Calgary
- 14 Game Officers (I)
- 1 Chief Clerk
- 2 Clerks
- 1 Clerk-Typist
- 1 Stenographer - Calgary
- 4 Stenographers

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8. TECHNICAL

- 1 Director Technical Division
- 1 Asst. Director Technical Division
- 1 Interpreter - Aerial Surveys
- 3 Photogrammetrists
- 1 Junior Engineer
- 2 Assistant Surveyors
- 1 Senior Draughtsman
- 11 Draughtsmen
- 1 Librarian - Aerial Surveys
- 1 Photostat Operator
- 5 Clerks
- 4 Clerk-Typists
- 2 Stenographers

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9. ACCOUNTS

- 1 Administrative Accountant
- 1 Asst. Administrative Accountant
- 3 Supervisors
- 19 Clerks
- 2 Cashiers
- 9 Bookkeeping Machine Operators
- 3 Stenographers
- 5 Clerk-Typists

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## 10. REGISTRATION

- 1 Registrar
- 2 Chief Clerks
- 1 Correspondence Clerk
- 1 Recordak Operator
- 19 Clerks
- 1 Methods-Analyst
- 2 Clerk-Typists
- 2 Stenographers

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## 11. PROVINCIAL PARKS BOARD

- 1 Superintendent of Parks
- 1 Provincial Park Warden -  
Cypress Hills
- 1 Asst. Prov. Park Warden -  
Cypress Hills

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 501 Total for Department





